

1909.

F

1909



Jabor

W. S. C. C.

Malheur

Glenwood

Muscatine

Hinton

Trine

Hopkins

Ligon

Ho Valley

If this book falls
into your hands
return it to

B. Shinnick

Down City
Iowa

20 25
20 50
10

who will see to it that
you are accompanied
for your trouble

378
312

April 9-1909

Left Iowa City at
10 AM. by way of
College to
Kendall Malvern at 6.57 AM

& found Young O'Bladen of
Iowa (hickman) waiting
with a team.
Drove to Iabor. Notice
that territory is typical
rolling Kansan.

Notice a number of
(see map) and in all
cases Kansan was in
evidence, - blue with
iron tubes. Also notice
some shells but did not
stop to collect, as Prof.
Calvin was waiting.

From Prof. Calvin at
Tabor, & we started in
a little while for the
buff country west.
We drove 1 mi. north & then
west. Passes hail-better
trees, & orchard hills out,
brooks, boxelder, crabs, along,
etc. Stopped at bank.
Follow down a long narrow
deep canon to river. This
is very high, mountain like & is
still pretty well timbered.
The creek next to road has
usual deep narrow gully,
& road runs along edge
most of way.
From Mission Pass only Mores
bluffs (see map).

3
at 12 in Rader's report. The hill
the above ground above 3-4 ft.
above ground. The hill
is a high, steep, blue
cliff. The hill is a
part of the mountain, at base
cliff.
At the bottom of the hill
is a small, shallow, exposure
of the rock.
At the base of the hill a series
of casts many feet across,
with shells (see box c)
This is typical yellow Mission
loam (see sample).
At d - in heavier yellow
loam (see) from base - 6 ft.
above road. Also a few shells in

Box, lower & sample

In sec 29130 Ranges V

25036 Lyon many trees

and deer, a bluff of earth

by a great trail in

of 1/2 to 1/3 mi

This is just above point

from which some of the

were taken. (See Divis)

There were no dark

mark (Aptinina) above

ground

Aptinina ground above

in bottom of creek bed

Lidar occurs here - not

living, but logs.

Boulders appear in creek
here & there (not many)

A little blue loam with
a few small stones under yellow
loam at junction point in

loam just above point

where the creek enters

the lake. (See Divis)

On the left bank of the lake

there is a small

low cut just below (d)

a little higher than bottom

(see box.)

There are from yellow loam.

At e. a black soil with

shells appears near base

of hill (nearly on level with

bottom) see shell. This

is under loam

(f) is in bluff in current

of bluffs. It is 95 ft. above

valley to top of afternoon.

then pit of is

C. F. Kephart

Barthlett, Va.

(will open new pit in summer.

days - Sun is about 20 ft

from sun, then sun slabs,

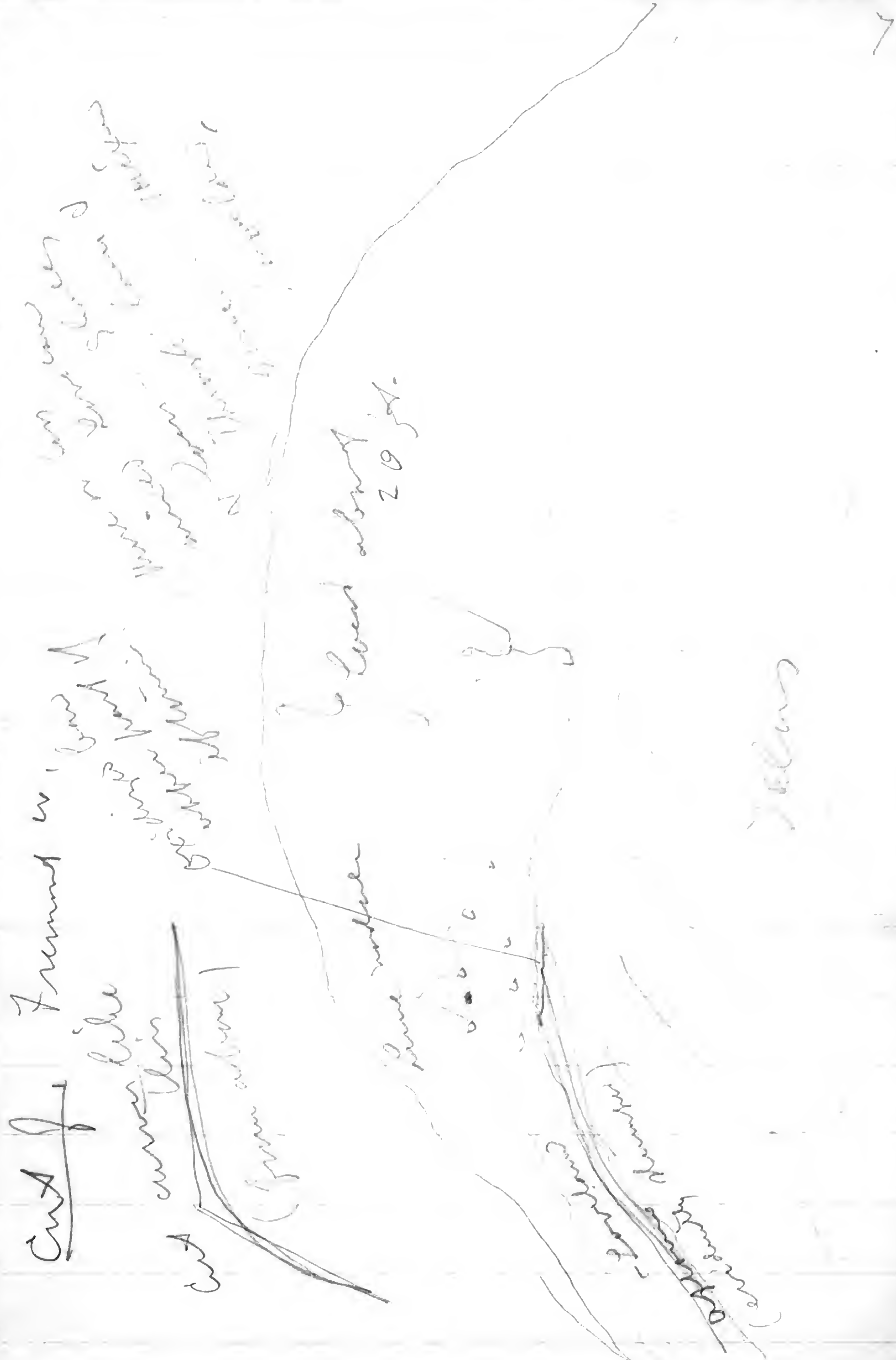
6-12 in & gravel 8 or 9 ft

Blue clay underneath,

There has been hunting
& mining.

This is a little S. of the
lake,

Gravel & gravel pit out all
along the bluffs here. They
have found bones in
the ~~pit~~ ^{and} gravel.



all along this Crescent
there is a bench, probably
60-70 ft above valley, &
above that rise high hills of
loam.

This terrane is part of apt,
& Kans with loam, (see 2)

Prof. C. took picture looking N, - 1, 2, 3.

Just about on Co. line.



9
In this Crescent the bluff are
wooded on base & in ravines.
There has evidently been
mining on (f.) The stone
modules are large & in irregular
pieces, the mountains bend
down, & there are some small
even lower part, mostly
Cretaceous Succession of lign.

Between the valley there is a
cut on the side of road showing
several feet of blue loam
with iron tubes.

Prof. Culver took photos
of canon.

(on return)

near center of sec. 25 Lyons
Twp. Mills co.

A group of trees along
creek is almost killed by
the hail storm of 11/2
yrs ago.

There are box elder,
elm, a walnut,

Prof C. took picture

I also saw an ash (battered)
in same way.

Even bur oak shows it,
though exfoliated like maple
shows it more.

Sumacs etc. along road
are also partly stripped.

Hail storm in June, 1908

The Wisconsin area is
about as shown on
map. The Illinois area
shows distinct (on map?)

The difference between the
two areas is marked,

The Wisconsin area topography
is rough, with sharp ridges,
& the soil is yellow.

The other area is more
rounded in topography & less
broken, and the soil is
darker. The pattern
difference is strikingly
noticeable.

Reached Zabr in good
time for 3:30 PM train, &
took it. Prof. Calver
showed to ticket reading

"good for one first class passage"
wasn't first class. We
had an old rattlesnake
coach.

The train stops at
nearly all the road
crossings.

The country along
RR. to Malvern is
mostly rolling Kansas,
but a part is a
plateau.

Few cuts show, and
only one looked at
all inviting.
Reached Malvern ^{4:25 pm} after
lunch I started down the
Wabash, S.E. Went to
1st cut, - a big one.

Big Wabash cut. S.E. of
Malvern

5A { sand
subsoil more abundant
in upper part.
6A { blue
rim with
Turkey & shale
underlying
extremely
above.

7A { blue & white
Very new
much below
with blue shales
8A { blue - no shales

This becomes ~~the~~ much
below & evidently I was
near ^(or in) ~~below~~ ^{below}

The top stuff goes up ³² ~~4~~ ~~ft.~~
 ft. more. (See fossils, nodules
 & blue loam from 4 ft. from
 top.

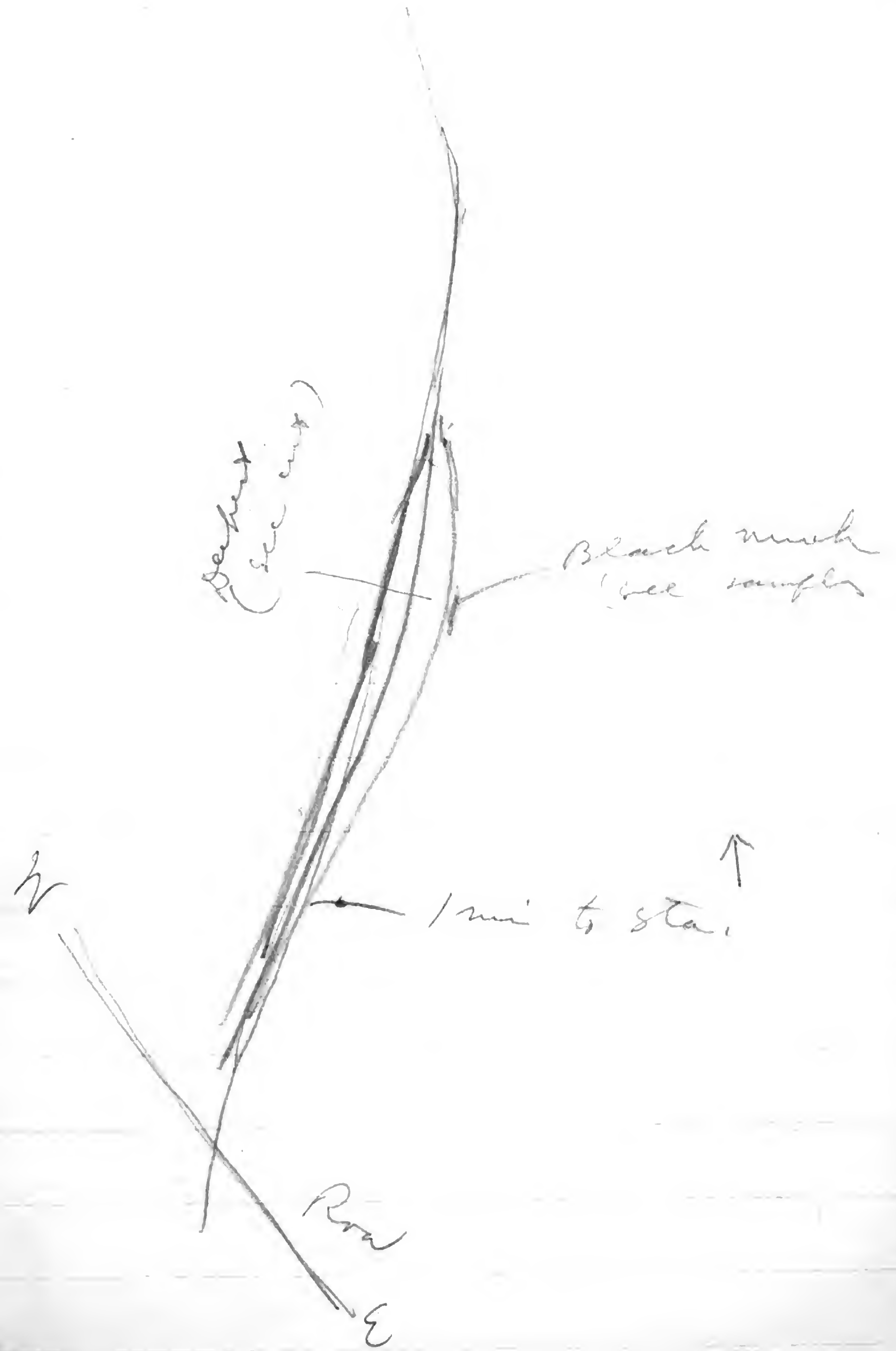
This top stuff is lighter,
 (lower) reddish & runs
 into soil. It grades
 rather abruptly below
 into blue loam.

Shells are mostly from
 within 5 ft of top.

Fossils at about 10 ft.

Total depth of big and
 about 32 ft.

The one mile to station
 point is toward S.E. end.



Toward N. end of E. end
a black soil ^(see sample) ~~appears~~
under blue (mucky)
loam + after 6 or 8 in
becomes very much
tougher + not so black.
(see sample)

The loam seems to be right
on this, with rather
sharp line.

The black band rises
2 ft above track +
shows 2 ft below (in
gutter)

Just above much (band)
loam is pure blue for a
foot or more + then
red, etc. as before.

17
This heavy much

Apr. 11 - Glenwood

The wind was so strong that I could scarcely walk against it, and the sand & dust cut my face.

It was from the SW, & was terrific. Later in the day it subsided somewhat, but blew well all

day, & the valley was clouded with dust.

Early in the day I could see clouds of dust rising from the cars, & fields, - later all was hazy.

I followed track from Glenwood to Pacific Junction.

In last big cut on S side of track, going W., the heavy clay (brown, at N. end in yellow) is red & blue in places (like Madison bottom cut, but tougher) & is probably Loveland. Though it may be mainly lower part of blue loess.

There are no fossils in this lower part & it is sometimes difficult to determine whether it is a heavy loess & Loveland.

at least 12 ft of (brown part drifts?)
 levelled + strike
 (about 2 ft thick)

Part of gravel, (mostly) in gravel

I consider true the
 levelled to within a
 foot or two of
 true work.



Part of levelled in
 rock, almost completely
 contains nodules.

Ridges in the rock 3 or 4 ft. One ridge
 is a layer (6-8 in) of sand & gravel
 conglomerate (= aptonite)

a brown yellow
 layer

Polos
 a brown second layer
 a brown
 1 foot yellow

about
 about 10 ft?

levelled
 darker red

this part being
 20 ft. Karman

very poor

Looking N.
 levelled
 1 1/2 x 1 ft

Last cut.

There has evidently been
some packing here, & masses
of alluvium above. But
I could make out no
distinct pre-Kansan.
The Kansan in the upper
part is limy, blue with
red streaks & is typical
western Kansan.

Below, within 6 ft of road
it is blue, cracked &
blue & red along cracks,
but has less lime &
few pebbles.

Small boulders, a more
or less broken line, separates
Kansan & Loveland.

The lower part of Loveland
for several ft. shows small pebbles.

23
Several large boulders
lie on flat, left by
glaciers, one a large D,
3 ft high - mostly
Sandy D.

For about $\frac{1}{2}$ mile N. on
W. side of bluff there
is the usual terrace,
in this case sloping
somewhat more. The
man near the "gap"
has an orchard on it.

At an below Benton
 I could see (from train) a
 number of pockets of sand
 (evidently Aptian) and
 just above Benton is
 a bank of stratified
 sand quite thick.
 Rock shows yellow siltstone.

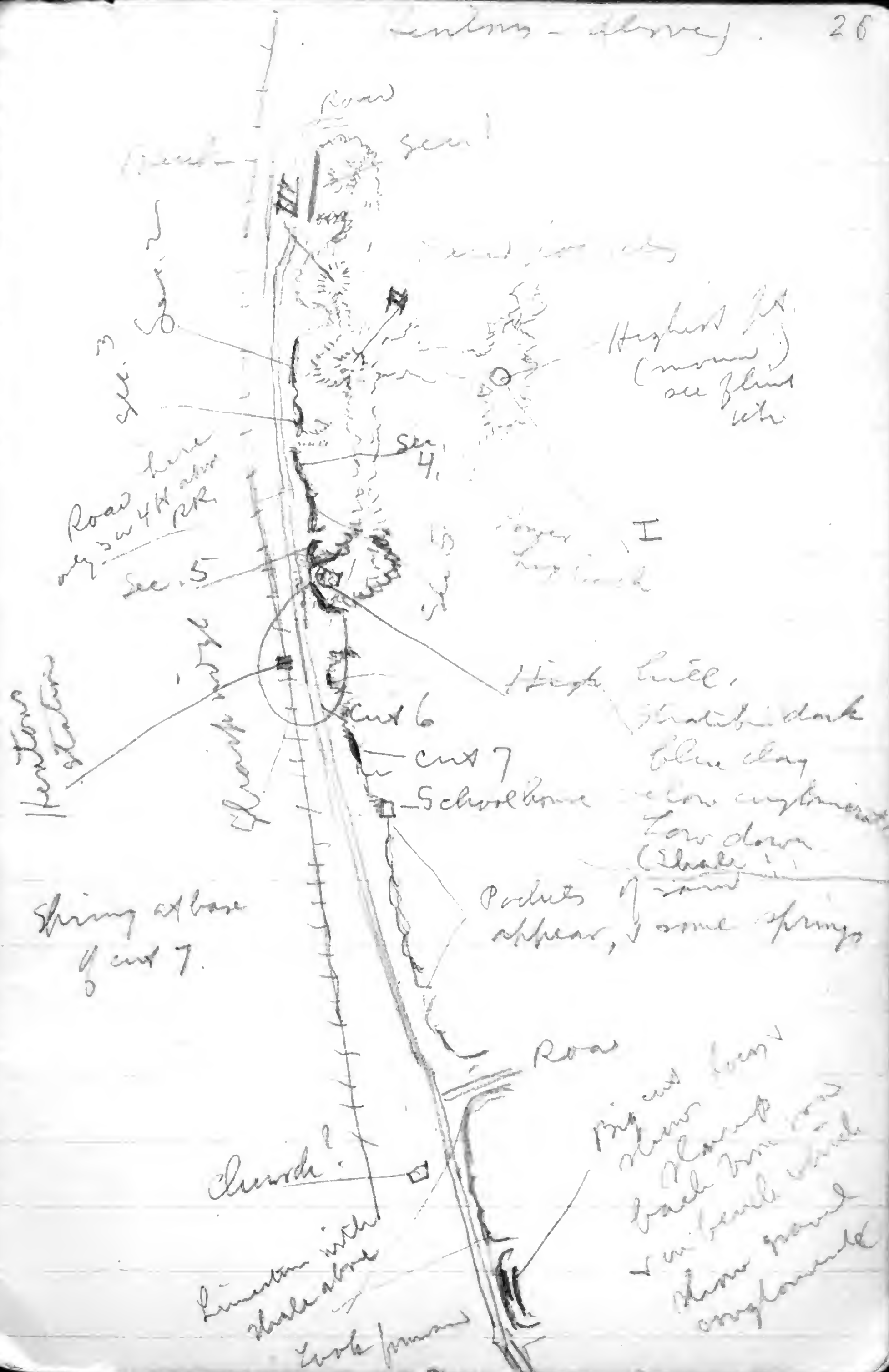
III is 85 ft. below I.

II is 70 ft below I

Yellow loam shales at 130-140 below
 surface run 190 to 225 I
 below /

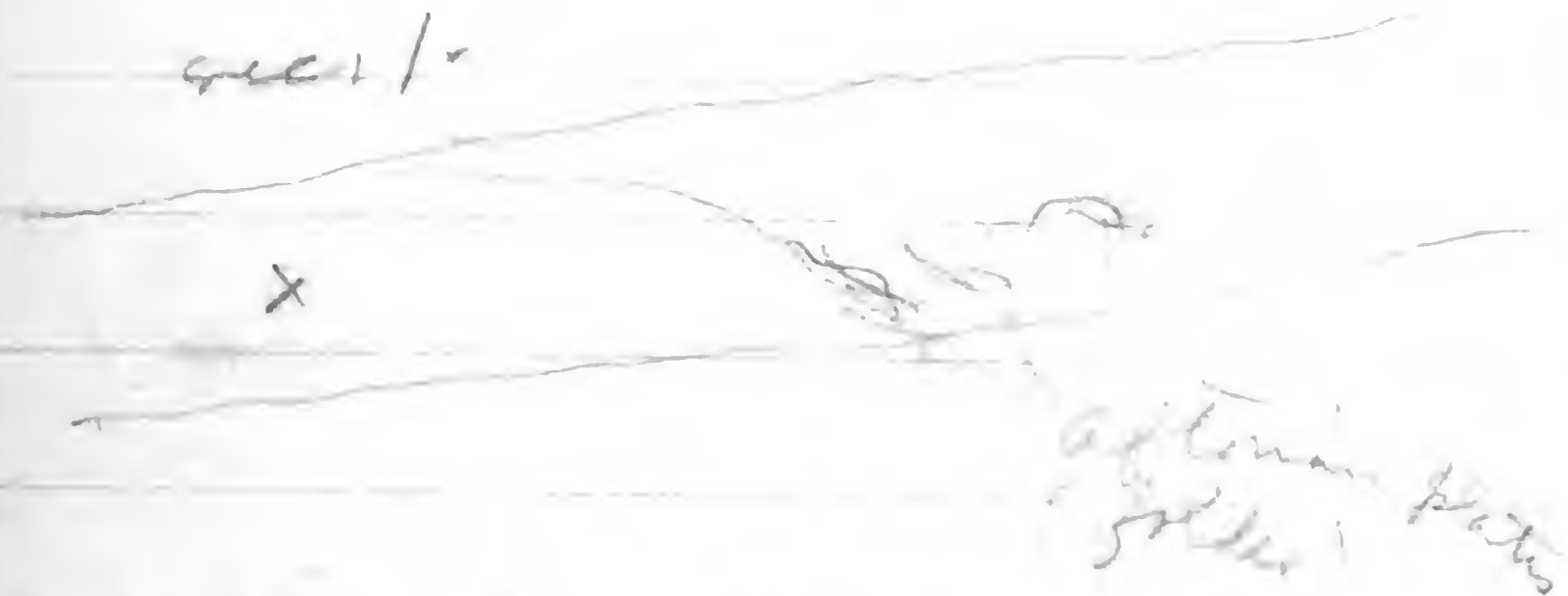
270 ft to foot of sec. 3.

275 ft to RR. which
 is about 6-8 ft
 above Murren bottom



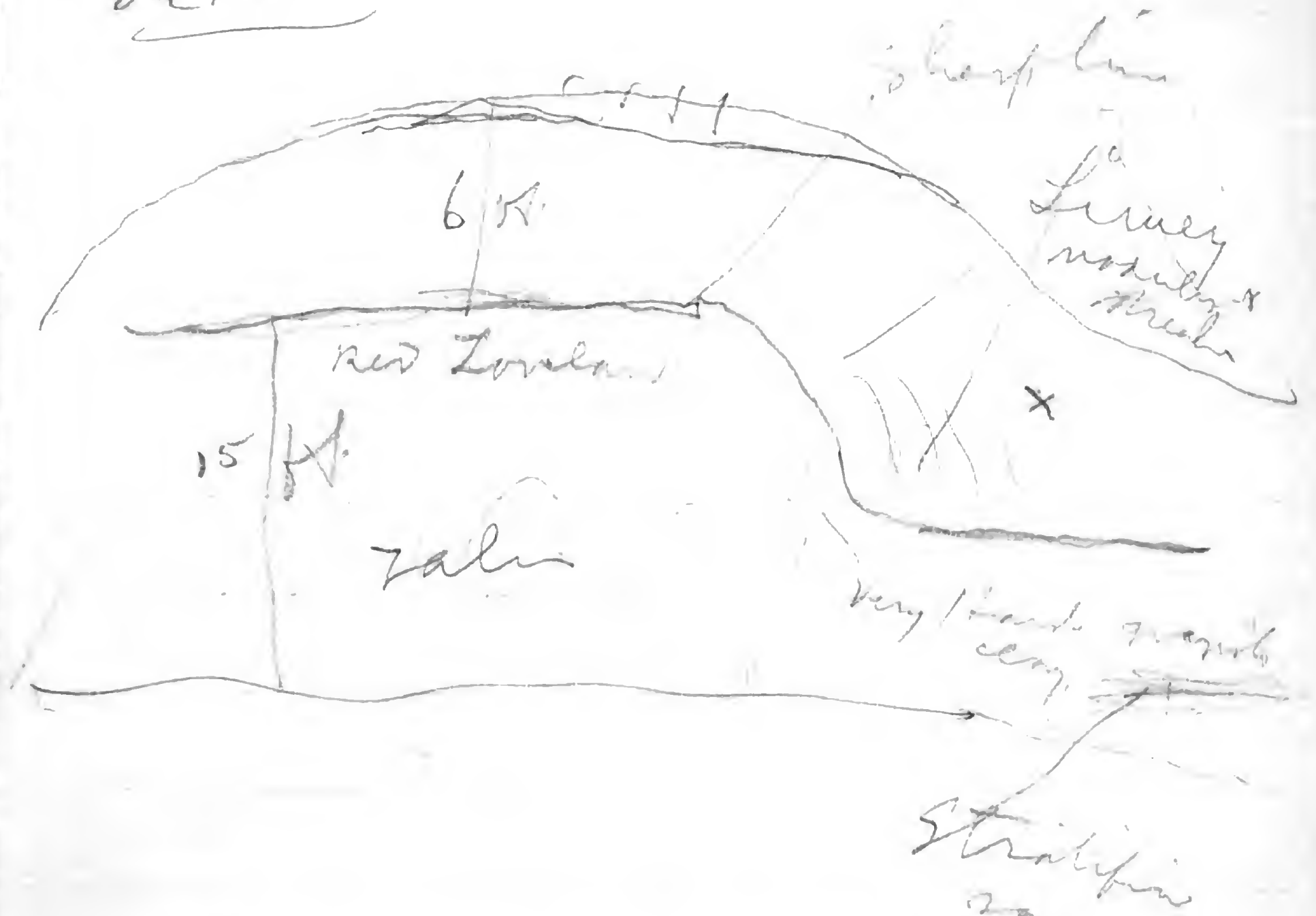
Sec. 1 runs up from about
8 to 30 ft above track
The section runs up hill south
is about 74 ft high all
the way.

sec. 1-



It is a brownish clay, with
with a few pebbles & some
& some shells (see shells)

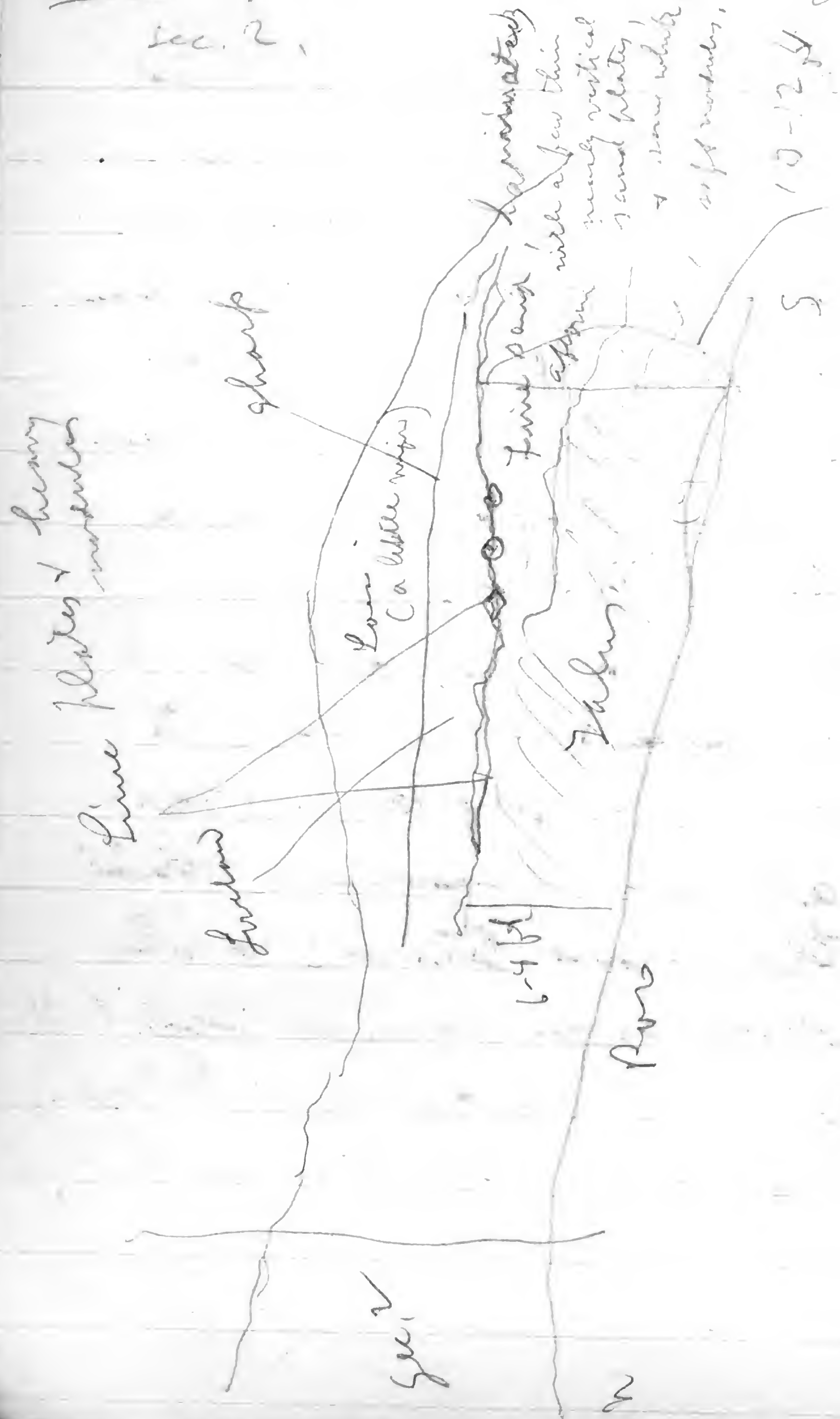
Sec. 2



At x a heavy (mostly blue) (very fine)
lens, with streaks of green
(probably overwash). The
lens has a few shells,
mostly broken.

This upper layer all along
is probably lens & drift
overwash from above.
Probably 20 ft. above RR.

Sec. 3 Just a continuation S. of
 Sec. 2.

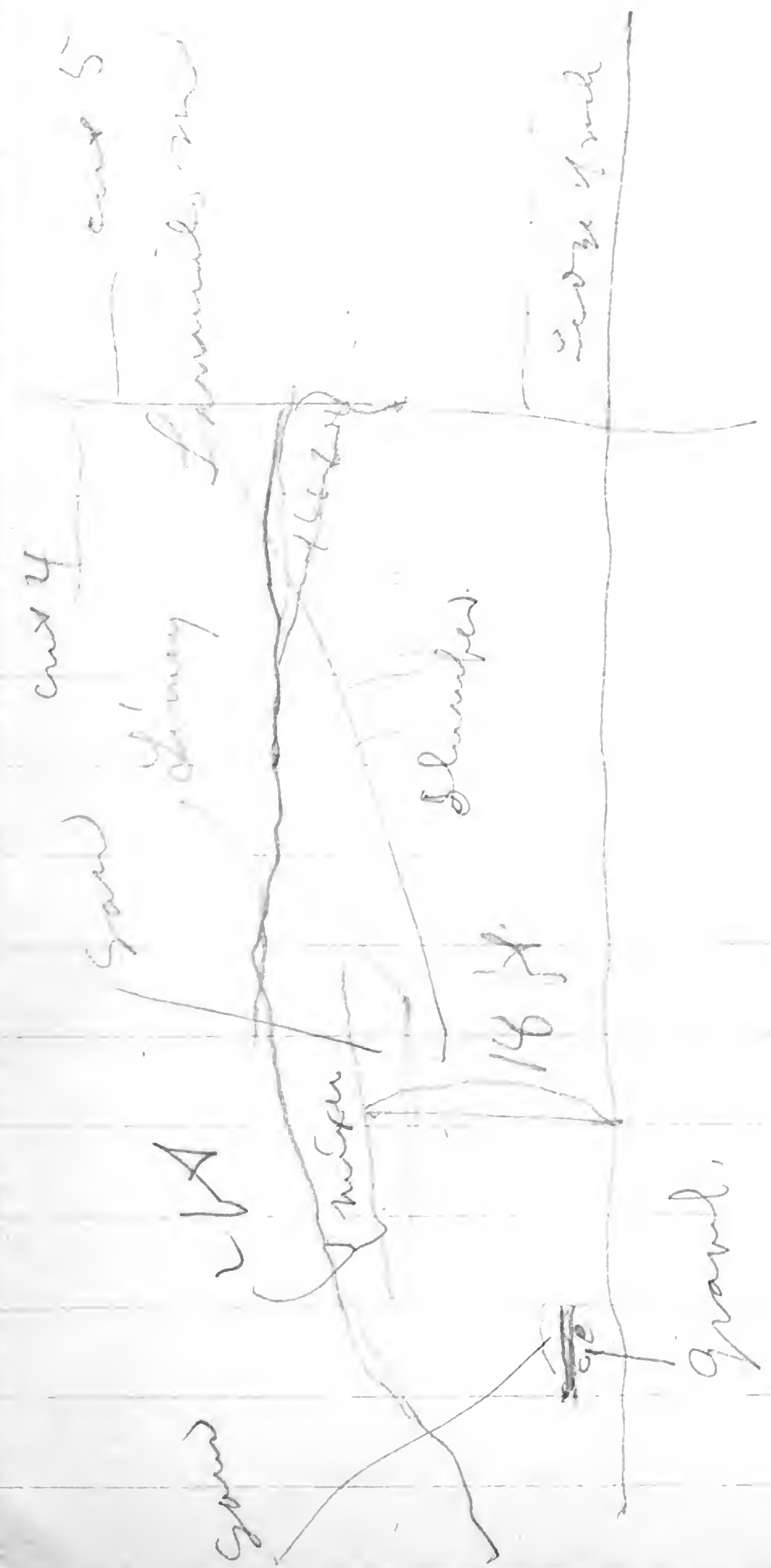


At III & elsewhere I throw
 pieces of paper to wind.
 Some gyrate promiscuously,
 many dropped & then returned
 at least in part, &
 a large number of small
 pieces lodged right on
 top of the ridge!
 At 140 ft below top I
 crumbled loam clots to
 dust on SW. slope (very
 abrupt, against which
 the wind blew, & the
 dust was carried up hill.
 Small pieces of paper between
 I & II also traveled up hill.

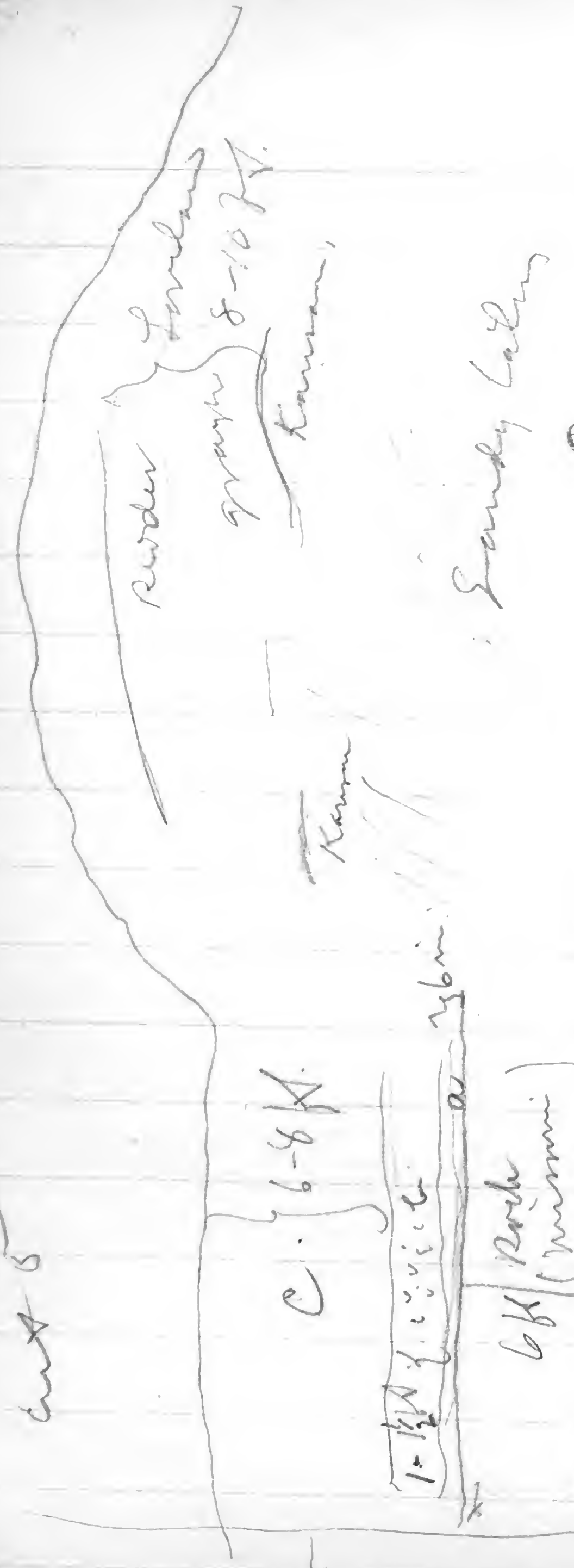
Sec. 4, thin fine (in
 upper 6 ft beautifully
 horizontally laminated sand)
 covered with 2 ft of mixed
 stuff.

The top of sand rises
 18 ft above Road & 20 ft
 above RR.

The sand extends to within
 4 ft. above road, where it
 rests on a bed of rusty
 partly conglomerate gravel.
 This shows but towards N. end



cut 5



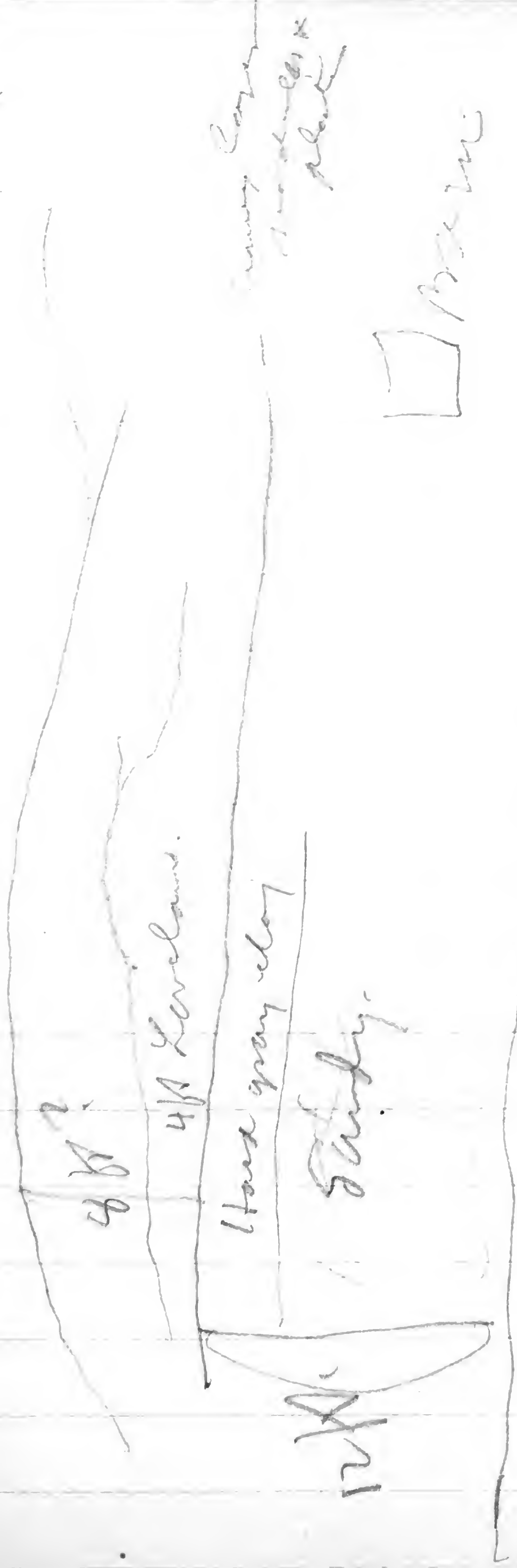
River

- a = Blue clay - not very dark
- b = Rusty gravel, some conglomerate
- c = Wigan shales - pebbly (forming lens) about 5 to 6 ft.

Big River D.
London

cut 5

High-land



Country Corner
London
about

Along cut 6, which is
of high bank, rock shows
horizontally, about 3-4 ft
above road, & about 10 ft
above RR.

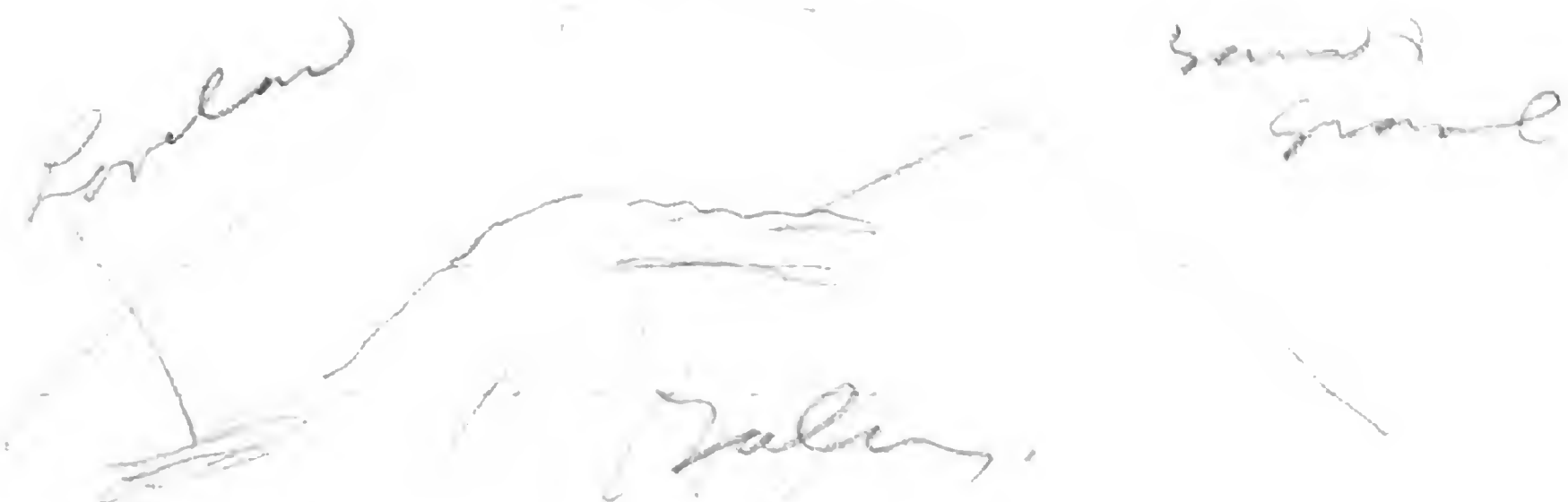
On it all along there is
rusty gravelly (some conglomerate)
layer, hardly a foot thick
in most places. The talus looks
the same, but here & there, especially
south, it shows more.

Above it is the heavy gray
joint clay & within the Loveland
with the usual mixture
above.

At extreme south & around
turn to little private
road, the same above the
conglomerate is looser,

cross bedded & very rusty
4 ft. exposure - some gravel
band in it.

Cut 7 is high, but rough.
Shows irregular bands of
gravel, etc., with some



Probably 40-50 ft. high
- probably from here - largely

Sioux D.

There is also gravelly conglomerate
here, & some sand.

Usual type, only
seems to be blown.

Just S. of school a huge
angular Sioux Q. boulder
in bank is straddled
by old barrow stump.



Barrow stump

main road

'Saw
pocket

cut 12

Row
runs
up on
side hill
a little

85 ft bottom
in side hill

Spring
(well)
Terrace

Spring all
along

Row

8

great rock
in place
of much loose
A great block of
Big Sioux Q. boulder

shows evidence of
disintegration
The rock masses are
great blocks of
conglomerate!
Up 30-50 ft.

cut 9

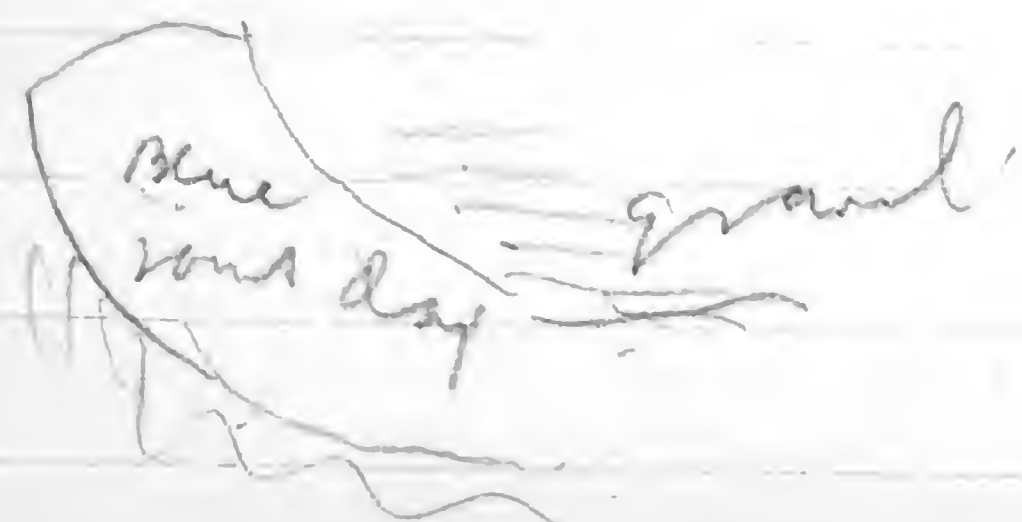
Here an alluvial (brown)
stuffs with shells
shows again
some pebbles
underlying layers
across up bank
in hill.

* Sand
pit -
fine,
white
sand.

These exposures are nearly
all in terrace which
shows most of way down or less

Cut 9. Shows sand - 8 ft +
base uneven. Some beautifully
laminated, & upper part very
rusty. K. drift & Lovelock
above it. Then Minner
lens.

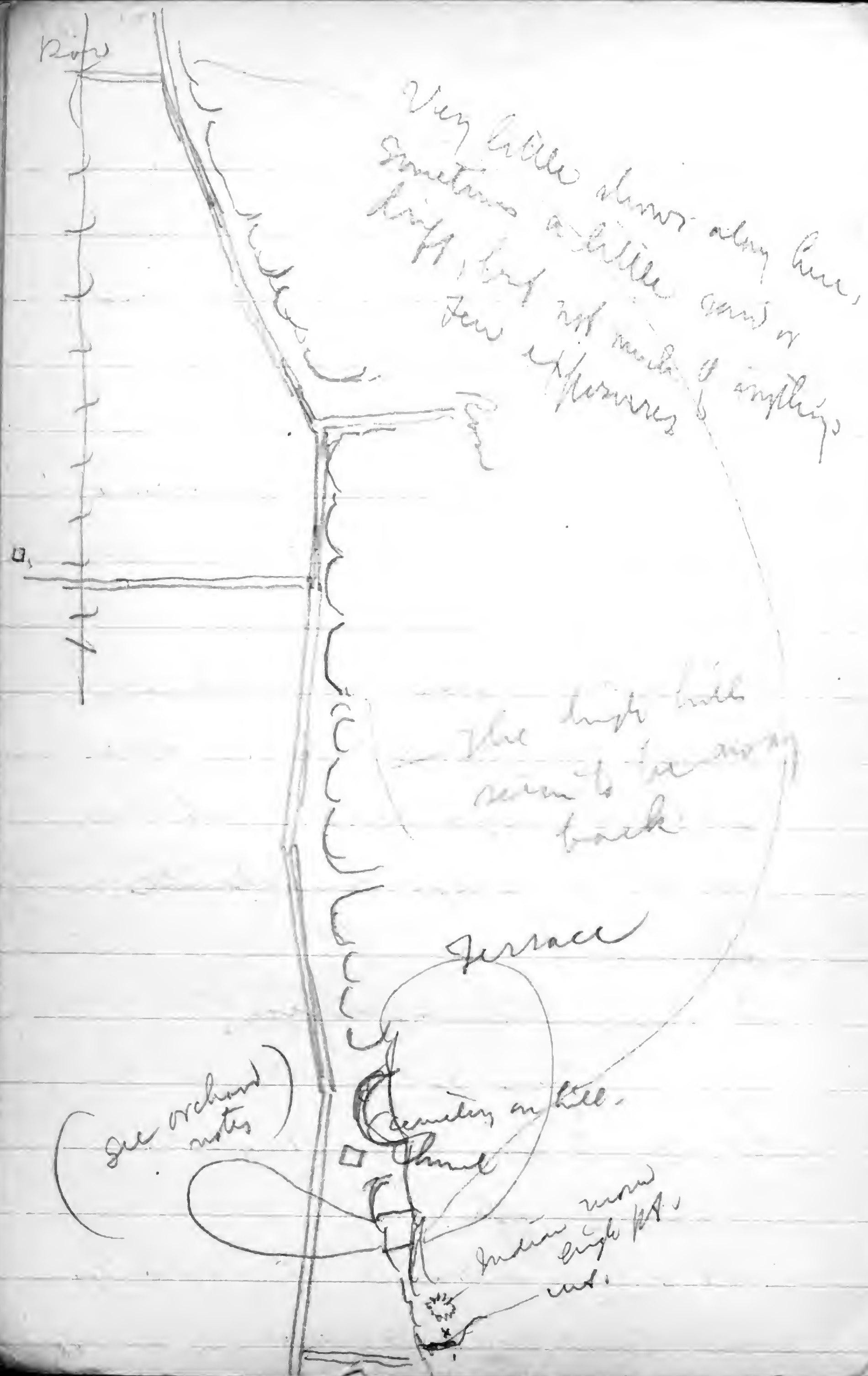
At its S end



All along here the sandstone
has drifted down to the river &
Overlook from the river.

There are no sand pits between
near Hentons and down to
Aberdeen / Cairns.
The bluffs between
Pacific City & the
Glenwood gap do not
look promising, & it
seems hardly worth while
to try them except for
mounds on a few of
high points.

Almost no exposures visible
in this part. It is
mostly timbered, & bluffs
slope down to valley.



Orchard notes. There is an orchard on the terrace (part on flat, but this is being cut away).



There is a series of ridges running into valley. The wind sweeps them nearly at R.L.'s. The apple trees in valleys & on flat look well, but those on top of ridges are stunted or die out. A fine illustration. This is the second house along bluff church, - the first is near church. at x the old man at Key creek found a buck's horn 15 ft. deep. He says

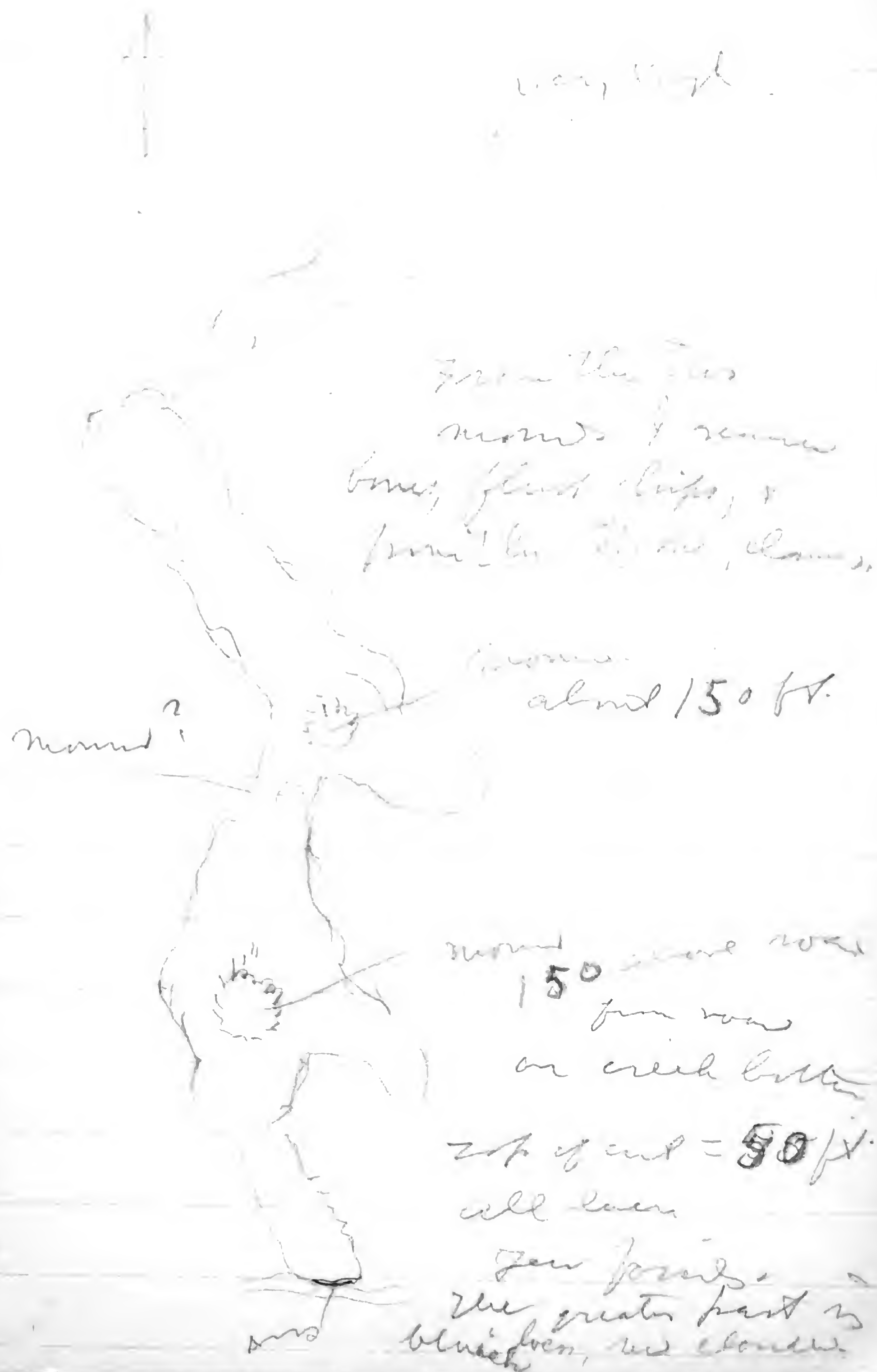
that in mounds they found pieces
of pottery, bones, etc.

To top of cut = 50 ft from
road on creek bottom.

To top of ridge, Indian
mound, 150 ft.

They have found pieces of
pottery, small "flint"
axes, human bones,
etc. in the mounds.

The two represented
were dug into.



The Crescent beginning
some distance above
Hentons, & extending to
Co. Bluffs, is not very
prominent. Slopes mostly
two gradual, no timber,

Left Council Bluffs
at 6¹⁵ PM & reached
Iowa City at 2 AM
Monday.

To Harrison co.

May 13-1909

Left Iowa City at

10:30 PM. for Cedar Rapids,

Raining—
May 14, 1909

Went to Sta. 1 & 3. collected

plants in woods near no. 2, &

also at 1 & 3.

At 13 collected—

Vicia palmata—

Castilleja scirpifolia

Agoseris—

Antennaria—

Quercus macrocarpa—

also went to Cox's pit & took
bones. Mostly fine sand
nowhere now.

In afternoon went west to
Main bridge
Saw fruit of *Cornus rugeliana*

Verbena stricta in sand dunes
location.

Salix humilis in sand

Rhus glabra " "

" *Ribes missouriense* " "

" *Dandelion* " "

(These are all given on p. 49.)

Also collected additional plants

(see p. 49.)

The sands are pretty desolate
at this season of the
year. I found a number
of *Marcella* in the
Cottonwood timber.

Also moss on the sand.

When coming back I found
all the stuff did not
show the contrasts of
summer. They are all
uniformly green
or greenish brown. The
brown notes have a
suggestion of green.
There is less variation
at this season of the
year, & the differences,
so striking in summer
are scarcely noticeable.

49
For additional plants
observed, see p. 47,
see also p. 48. It was
collected in the same place
as follows:
Vicia
S. sp.

also saw *Silene* etc.
The following were on sand
in the more timbered ^{or brushy} part:

Populus deltoides
Salix microcarpa
" *amygdaloides*
Cornus —
Vitis vulpina
Rhus glabra
Ribes missouriense
Larococcus dendroica

Also saw:
Helianthus annuus

May 15, 1907

Visited Twin. Babcock
gave me a horse with

The N. end of pit is
filled & they stripped south.
The section now appears as
shown on p. 51.

The Lovelands is here quite
distinct.

The men say that they worked
(bore?) down to hard, partly
like dark blue clay. Yes.

Babcock said it was very

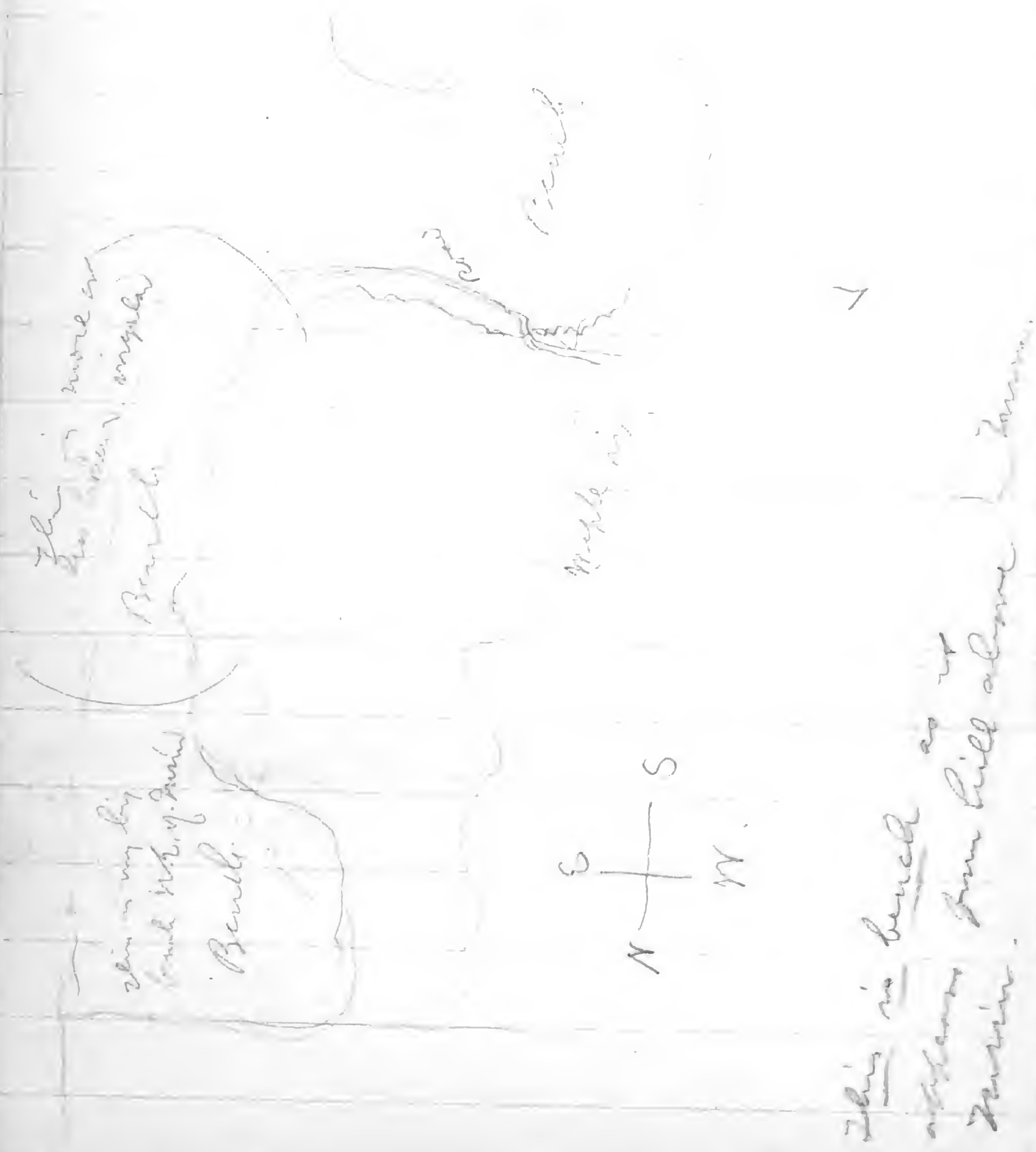
tough to work. It is

evidently pre-Kansas.

Babcock says that when ^{Best} Ellison
was bargaining for land the old-
timers assured him that there was
sand everywhere in every wash on the hills!

He cited them & show how
"reliable" such information usually
is.

15' length
in power 1 1/2 ft.
- fossils
18' sand

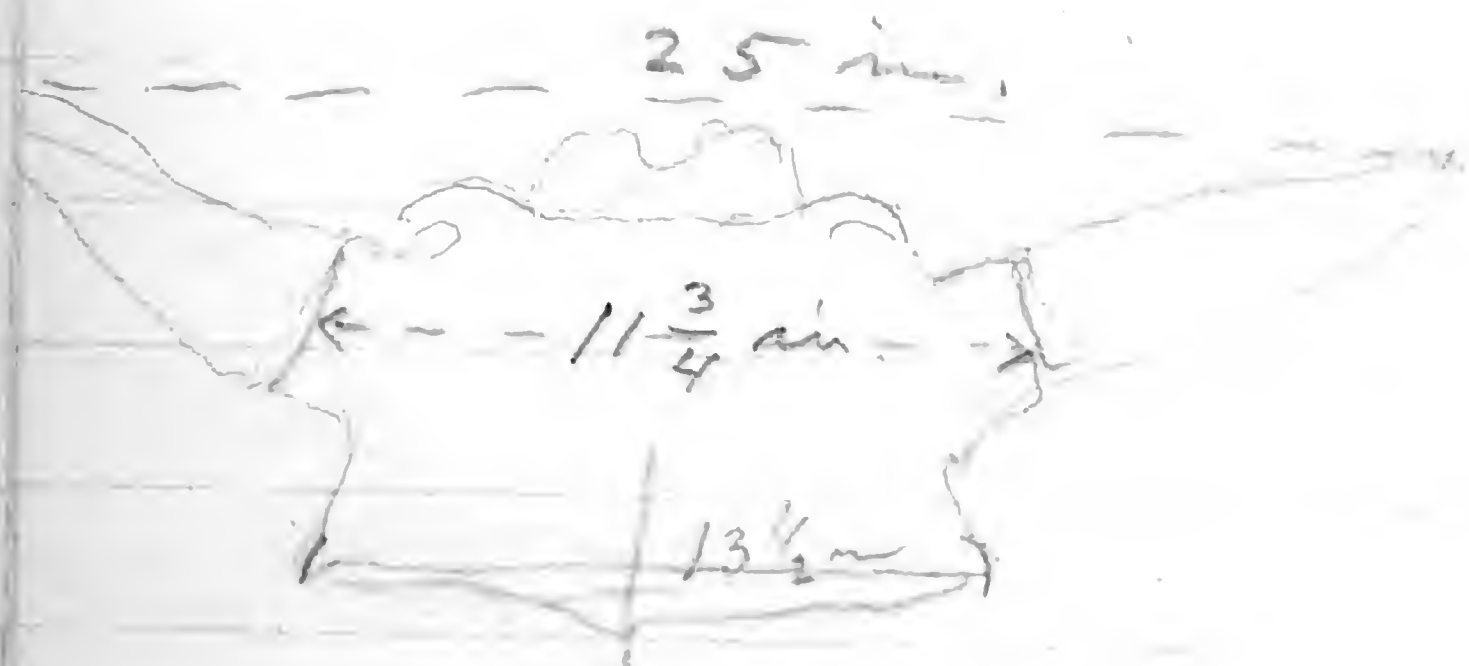


Tomia *... ..* fl.
... .. " " "
" " " " "
Sisymbrium angustifolium - not common - fl.
... .. - common - young shoots
... .. - plants - common
Lithospermum longistylis - not rare - fl.
... .. - fruit - common
Castilleja venifolia - very common - fl.

Rib - blacksmith - from gully
N. of main - from sand.
Christ Mathiasen,
The rib was found in gravel
at the 3rd house above main.
The men say lots of small
bones were scattered through.
This is at place where sand pit

appears N. of creek (or gulley).
The old pit was down in gulley
(older bridge or near it)

The skull in Mathiason's
possession is ~~evidently~~ ^{arguably} not
~~Pro Cataglyphis~~. He says
the farmer (in sec. 17, $\frac{1}{2}$ Jordan
Twp.) claims that he was
other bones, etc.



Says he has a lot of things
on Beaver creek - washed out -
in sec. 17 Jordan Twp.
Bison $11 \frac{3}{4}$ in between bases of
cor. - 25 in - tip to tip.

Took trip through Fischer
woods & collected plants.
Found my glasses. Sandpit near better
exposed.

My glasses will



This is evidently all
planned up.

Saw Chas. Whitings tell
One, from the Griffin place
in sec. 17 Twp. of Mapleton
is a part of a tooth of
Elephas americanus, with
only a little worn off.
This was in gravel about
35 ft from surface, in
well at Griffin's house.
He also has a part of
a mastodons tooth from
the Williams place in
NW. corner of same
Township. / Saw a tusk
& other bones & teeth were
taken out from well
(35 or 40 ft deep?) at the
house in NW. 80 of the
Twp. A tusk, etc.

57
None left in
sec. 10, Twp. 20, sec. 10, Center Twp.
He has another, also two
leg bones, of which he
gave me one.
These were washed out in
creek bed.

May 15 - 1929

In the hills S. of Hot Springs
in prairie. Camp, example.
Asterum, & Antennaria
are very common.

The upper sides of hills are
covered with Q.
deciduous, & some with
sage. In fl. Hazel common
also now.

- | | |
|----------------------------|---|
| <i>Eryngium</i> | <i>campylo</i> |
| <i>Lithospermum</i> | common |
| <i>Plantagin</i> | <i>agris</i> |
| <i>Viola patens</i> | <i>trichoman</i> with <i>heli</i>
not common |
| <i>Dandelion</i> | <i>Astragal</i> <i>campylo</i> fl. |
| <i>Carex pennsylv</i> | <i>Lithospermum angustifolium</i> (few) |
| <i>Rubus</i> (fruit & fl.) | |
| <i>Geranium</i> | |
| <i>Antennaria</i> | |
| <i>Salix humilis</i> | fr. |



From above view looking along
this creek. The valley is
deep & not wide. All this
is very fertile. Finding

In NE. corner of sec. 15, a 9 rods of
it is alluvial land 10 ft
above road & about 20 rods
across. 2 2 - see sketch.
It is mostly dark, but
upper part is yellow.
Plowed fields in this part of
country show black soil only
in the little valleys or ravines,

where original vegetation was
more common, and tops of
ridges (even the small ones)
are yellow.

On rec 31 (at X), at Fair Park.
The loess is about 7 ft deep
(i.e. cut) & upper 4-6 ft is
yellow, with nodular layers. &
few larger nodules below.
Then a very large quantity
below into blue (red mottled)
(Kansan loess)



at S.E. 1/4 sec 17 N. of
Fair Park. There is
drift 1/2 way out hill. One
large boulder. Kansan drift.



J. E. Williamson

W County line.

(Pit)

Well

Don

The mastodon tusk and the
tooth in Mr. Char. Whiting's
possession, were found in
digging a well at point
marked "Pit".

Another tusk was seen

63.
down there. The tusk was
in sand & gravel. It is
said they were in sand
touched with red, or
something of the kind.
The tusk went to some
college, - probably, at
least three years ago.

May 21, 1909

Wagon ²⁵ fare to Cedar Rapids ⁶⁵	\$.90
Fare to Logan	4.72
Lunch ⁴⁰	.45
R.R. to Cedar Rapids	1.72
R.R. Cedar Rapids to Iowa City	1.06

May 21-1909 - To Logan
Left Iowa City at 10:45 PM
Grove Co. Iowa. Time consumed 4 am
to reach Logan 4 am

May 22 - Saturday

Left at 4 am.

The weather is exceedingly bad
all day. Prairie bottom.

Prairie flora gone, except for
little bits along R.R. right of way.

Saw following prairie flowers along

Comp. acles	Poa antennaria	C
Lithospermum	Senecio balsamifera	C
Dryopteris	Viola pedata	C
Asplenium	Dracopis	C
Asplenium	Lithospermum concinnum	C
Asplenium	Composita umbellata	C
Asplenium	Thymus erecta	C
Asplenium	Hordeum	C
Asplenium	Desmodium illinoense	C
Asplenium	Pedicularis canadensis	C
Asplenium	Viola "palmetta"	C
Asplenium	Sisyrinchium asperula	C
Asplenium	Oxalis violacea	C

Blue grass everywhere. shore marshes C
were seen in
Crawford Co.

(Between D. & Arum)

Between Denison there are
glacial beds on flat along
road + some woods on
flat. They are about 2000
feet from road & away
up, more than 1/2 way.
Rhex chlorocoma occurs in
Crawford Co. on alluvial flats
in woods.

Between Dunlap & Logan, Ia
following plants were observed:

Prairie

- Lithospermum canescens
- Viola palmata
- Eryngium angustifolium
- Pedicularis canadensis
- Fragaria —
- Blue grass & Eragrostis
- Danthonia —
- Oxalis violacea
- Sisymbrium canescens
- Lithospermum angustifolium
- Comandra mollis
- Echinops angustifolius
- Senecio basanthus
- Capsella bursa-pastoris
- ~~Apocynum androsaemifolium~~ (Agrostis)
- Arum acutifolium
- Rosa arkansana
- Achillea canadensis

Alluvial

- Ranunculus abortivus?
- Carduus hirsutus?

Wet places

- Carex —
- Rumex
- Cast. leaf
- Iris versicolor
- Najas yellow
- Arum

June 3-1909

Left Iowa City at 3:30 PM.
& reached Stanwood at
7 PM.

Met Paul Kure, examined
looked at plants trees.

Took specimens of black
hard maple & a grafted
elm-like tree (see spec.)

Delivered address before good
audience. Returns to

Cedar Rapids at mid night
& put up at Allison Hotel.
Dinner spoke at Mechanicsville

In afternoon collect along RR for 69
2 miles west of Holand. See prairie
plants.

June 4-1909

Left Cedar Rapids at
7:30 AM for Albia, Iowa.

Left on Iowa Cent
Holand. Lectured at night to
Norwegian audience. Then to

Story City, took train to Ames &
then to Morris Valley, which I
reached at 6:25 AM on

June 5th

Geo. H. Culavin (son) G. F. C. - Galle

Found an Indian skeleton, reclining
(gently sitting, & facing South.

It was ^{mostly} 3 ft. down to skull.

The skeleton is that of an adult
male, probably over 6 ft. high.

with fine teeth, & powerful frame.

With it were bears claws (not horns!)
only cores

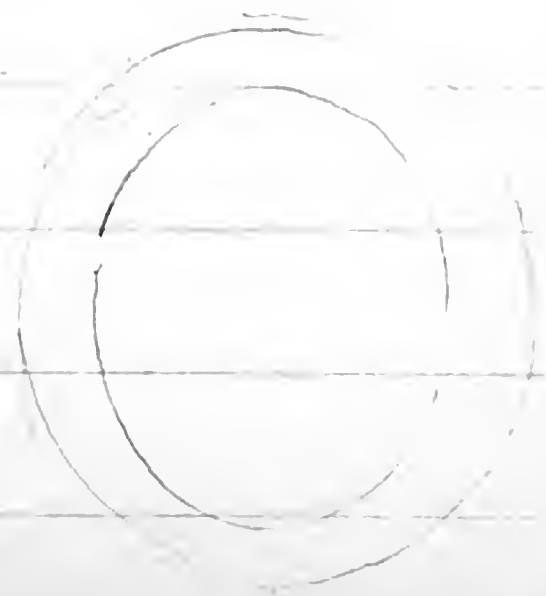
perforated, & copper bells (like little

shish bulls.) + copper tubes (taking)
also arrow head (point) ochre
piece of tube, looks like part of
very rusty metal, also piece
of metal badly rusted. A bone
scraper, ochre, and a wooden
key with wire wrapped around with
wire.



wire flattened

also copper or brass key



also 3 small stones, two probably
used for 1 inch.

Two

Pipestone pipe,
two such were
found.



Other skeletons have been found
near by, & also scrapers, etc.

Clam shells are abundant above
common on hill

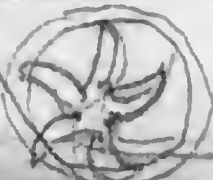
Poor oak sticks (4-6 in) were
laid across over the top of S.

The grave was on a hill at
85 ft. above creek bottom.

Clams occur. They are shown

over slope 30 to 50 ft above
bottom in abundance.

The hill goes beyond this
to north. Not the bear-
claw necklace

June 13-1909 - Mr. Cullavin found remains
of two children - Tops of two
little skulls, & several small ribs,
a few larger arm & leg bones,
no backbone. Seemed to be in
large piece of buckskin(?) folded
into several thicknesses - 5 or 6 -
about N. of head of old cliff -
about 3 1/2 ft deep. A piece
of birch & black walnut were
with them. Probably stakes
driven in as marks. -
Small brass ornaments (two) *very interesting*
 - 4 in. - 3 in. *very interesting*

I winter well, and I
expect, and I, and the
winter, the winter, the winter
Castillaea canadensis, and the

at over 12 ft. of the
virginicum, and the
a grass.

Took down the hill
large tree near the
burned & in the
from the hill
at sta. 1.

At sta. 3 & near the top of the
following, - but place of the

- Oxytropis lamberti
- Ceanothus ovatus pubescens (very common)
- Cornus umbellata
- Lithospermum canescens
- Castilleja canadensis
- Fragaria

But the best area is on south
ridge, just above Smith's bridge
I found *Oxytropis lanulosa* and
Castilleja nuda the latter
abundant, the former producing
a *Phlox* like aspect. Many of
the older fls. of the latter are
reddish or purplish.

The following were found:

- Oxytropis lanulosa* - fl.
- Castilleja nuda* - fl. & fr.
- Prunella esculenta* - fl. & buds.
- Astragalus canadensis* - fr.
- Symphoricarpos angustifolius* fr. (some fl.)
- Lithospermum canescens* - fl.
- Dalphinium* - buds.
- Cornus pennsylvanica* - fr.
- Viola papilionacea* - fr.
- Pentstemon grandiflorus* - buds.
- Lupinus albus* - fl.
- Poa pratensis* - fl. & fr.
- Oxalis stricta* - fr.
- Physalis pubescens* - fl. & buds.
- Ceanothus americanus* - fr.

- Campanula medium* -
- Delphinium* -
- Docteria* -
- Staph. sp.* -
- Urtica* - fl.
- Lythrum* - fl.

left at 2:15 PM for Fremont
& Scribner. Waiting at Scribner
until 3:15 PM for train for
Clarkson. Was met by train
Folds, Randall, Hightmire, Carl, etc.
Put up at the Hotel, with
Mrs. Bernick of Omaha whom I
had met in train at Scribner.

June 6 - Sunday.

Chas. drives & writes.

Went over to

to a farm just S. of Clarkson.
To one house which were
taken from a well.

The well is well up toward the
part of a shale, & they went
down about 34 ft.

The bones (of which a lot is
left next to well) were at a

a depth of between 9 & 10 - rest
on, or slightly in, a layer
of which was seen with some
bones (but not them). The
material in this was a
very low, very stiff, but may
have been in part covered
from higher points.

The blue loess was about 3 ft.
thick, & under it, & rest of
way (about 20 or 21 ft.) was
reddish Laramie joint clay.
They stopped in this.
I saw two bones.

This is probably a buffalo
(bison) certainly more recent than
post-Kansas loess.

Spoke in afternoon with Mr. N.
Mr. Dudgeon buried for ten

and introduced Mr. Duratio,
who was Miss H. East.

Left at 9:20 PM. on flight
for Summit.

In walking over prairie in
morning I noticed:

Eryngium angustifolium

Oxytropis lamberti

Oxalis purpurea

Prunella serotina

Aster sp. canyonum

Carex pennsylvanica

Poa pratensis

June 7th 1909

Left Summit at 6:09 am.
via U.P., & reached Missoua
Valley at 8:35 am.

Drove up road from Saddle
through woods. Road. Bad, - some
collected plants.

Returned at 1:35 & then to rush
to get ready for train.

Left Miss. Valley at 2:26 PM.
Saw much *Corydalis* on bottom,
also *Eris*, *Tradescantia* (smooth)
& *Anemone canadensis*. Little (L²)

Below Crescent a bare
rocky hill was studded with
Pentstemon grandiflorus in flower!
also saw *Oxytropis montigena* in
bloom near Mr. Valley,
collected plants at Sta. 1 to 2 & at 3,
and also on north bench.

June 12 - 1909 Saturday
Left at 9.30 & took C. & W.
for River Sioux.

June 13 - 1909
Reached River Sioux at
On bottom prairie between Mo. Valley
& Calif. Jr. saw very many
Quercus canadensis (very, very common) & *Phlox*
pilosa in flower
also lvs. of *Silphium laciniatum*

Artemisia ludoviciana lvs.

Rumex crispus fls.

Agrostis fls.

Allium canadense fls.

at River Sioux - on prairie flat,

Sisymbrium officinale

Eclipta alba

Hordeum jubatum

Lepidium sp.

81
had seen the same in the
Kansan, but it was not
in the same place & there
were no flowers. But
practically all the same
afternoon, etc.

at the point where the
Kansan, ... meet on the east front of
point 1/2 way up, there
is a splendid bed of
Pentstemon grandiflorus in
fine flower.

It is again noticed that
all slopes are uniformly
fresh & green, though the
grasses, etc. are tufted, - at

(*Amorpha canescens* in fine
flower along river)

close range.

Returns to Geo. Valley at
2:15 PM & drove to Cox's.
No one at home. Took bus.
Then drove to Snyder's Hollow
& collected plants, some
with elm.

In evening went on Smith
ridge & to Culler's.
At night flower plants
until 1 AM.

June 14

W. H. A.

Just S. of first turn (22.5 miles)
of Snyder's Hollow there is a
small stream. There is a
house on a hill to left, but
the road is just at
at 2nd turn. It is just S. of it,
Kaukae about 1/2 mile.

In no. 27-50-44 there is a hill
of rocks at least 10 ft high
with trees above. Butts are
refined & uninformative.


similar

It is on E. side of road & above
bottom, on base of road

W. A. Robinson
The gravel pit is

located in

It is full 46 ft deep

It is as follows

Levelled

fine pebbles

gravel

gravel

same

extremely & interesting
bed of sand & gravel the
sand with black streaks
(otherwise nearly white or yellow)
& well cross-bedded.

Shells occur in medium coarse
sand. Forms

Planorbis

Prindin

Limnaea (reflexa?)

amnicola

Valvula bicolor

Segmentaria

Planorbis

Unio

85
This is located at ...

... ..

Some of the ...

... ..

The

... ..

... .. "nodules" &

little layers of the fine
blue-white ...

Soft white

This is the W. A. Robinson

pit.

The Hazenian pit is below

This is Adolph Hazen
of Mondakwin.

put above spring in N. 1/2 of 16-80-44
There is a great mass of ...
shows for up hill

Cut 1 N. of Linn
is road cut in yellow sand -
light, of fine sand. The
see opposite.

This is about 1/2 way up the slope

81-44
In sec. 20 E. of Little Linn

At base, at valley edge, Linn
shows. In first big cut on left,
1/4 way up, blue part shows even with
table. The next two cuts show
heavy bluish loam. In top Linn
even, & on E. side, dark & cross road,

Pluton

- 2- Linn
3- Linn
4- Linn
5- Linn
6- Linn
7- Linn
8- Linn
9- Linn
10- Linn
11- Linn
12- Linn
13- Linn
14- Linn
15- Linn
16- Linn
17- Linn
18- Linn
19- Linn
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21- Linn
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83- Linn
84- Linn
85- Linn
86- Linn
87- Linn
88- Linn
89- Linn
90- Linn
91- Linn
92- Linn
93- Linn
94- Linn
95- Linn
96- Linn
97- Linn
98- Linn
99- Linn
100- Linn

This is a large Linn
of deep sand, green, & at all
the pit on S. side of road near
church - in sec. 26-81-44-

is typical, - blue Linn
2 or 3 ft. deep, then about 6-8 ft
of mixed stuff (Linn?).
The sand is medium Linn, &
shows a few fragments of (probably)
Sphaerium). 5 ft. of sand, blue.
Linn & pebbly layer (oxidized)
between Linn & Linn

In sec 3-80-44 - cut in
 several feet (5-10) deep & some
 yellow loam above & below,
 & thin bedded in the middle,
 etc. across part.

The next cut S. is all in a heavy
 yellow loam, like part above.

Some nodules & a few pieces of
 shales.

Cut at turn S. end, is 10-15 ft deep &
 lower 5-6 ft shows beautiful laminations.

Saw a few. Bluffs. & some nodules.

This is the heavier yellow (almost
 transition) loam.

The valley of creek which I
 followed to Miami valley

become very narrow above
 mouth.

Erzuzi - yurush

- ✓ *Salix humilis* Can.
 ✓ *Arenaria cylindrica* Can.
 ✓ *Potentilla arguta* fr.
~~✓ *Potentilla arguta* fr.~~
 ✓ *Camilla* Can.
 ✓ *Astragalus canadensis* Can.
 ✓ *Helianthus scaberrimus* Can.
 ✓ *Rhus glabra*
 ✓ *Antennaria* —
 ✓ *Comandra*

May 21-1909 - To Amana
 walked through woods to Bitter Lake.
 Found white oak on clay & yellow
 oak on sand. Found *Asplenium*
platyneuron & *Orchis speculata* just
 partly opened. Ground clayton
 in fine fruit (mostly green).
Viola pedata was very common
 in the oak openings on sandy hills.
 In the boggy bottoms *Calla*
 & *Ornithoglossum* were very
 abundant. In the following lists
 the plants (not trees) listed were
 in flower unless otherwise stated.
 Of the trees, those marked x fl.
 were in fl.

On the bottomlands (N. side)
Phlox divaricata was common -
 in patches

Amana plain - N. side river.
Geranium *macranthum*
Erigeron *annuus* fruit, - some fl.
Asplenium *platyneuron* -
Orchis *speculata* - in leaf.
Viola *pedata* ^{identical}
Baptisia bracteata ^{leaves} *indigo* ^{leaves}
Phlox divaricata mostly bud.
Antennaria *plantaginifolia*
Zizia aurea - mostly bud.
Hydrophyllum *virgatum*
Eryngium yuccifolium (juv.)
Anemone canadensis - in bud.

Bog in words S. of river.

Calthea palustris - fl. & fr.

Quellen reichlich - also fruchtbar

Cardamine flexilis - fl.

Phlox paniculata - in leaf.

Barbieri

Evening = in leaf (small)

Bottoms N. of river

x *Q. macrocarpa* fl. *C. torreyana*

Sept 1844 - fr. Honey Grove

Am - fr. gone.

Salix amygdaloides - fr.

1. *miris* - flower

11. *longiflora* - flower

Black River - fr.

Sycamore - juv. leaf.

Crab. — fl.

Crataegus mollis - fl.

Green ash - lbs. gone.

Rhus toxicodendron - juv. leaf.

The barrels are fine
fresh trees.

1. *Hydrocotyle* - fl. + fr.
 2. *Hydrocotyle* - fl. + fr.

[Faint handwritten signature]

Ridges in Aquilegia - fl.

~~1/2~~ 1/2 - 6

1898 - 1899 - fl.

[Faint handwritten notes at the bottom of the page]

... - inv. 100.

1894

18

[Faint handwritten notes at the bottom of the page]

12

$\frac{1}{2} - \frac{1}{2} = 0$

1. *Phlox - angustata - fl. br.*

2-1-1945 - 2-1-1945

Bill - unhappy - gives

For review, (2011)

1. 1.1

15-78

22

26. *Stem* *convex* *fl.*

garia - 10

Western country -

permanently (rare)

~~After 6 years~~

Pits & saw pits
Burn

McGovern Pit

Between Spanish Ho, Valley

Cox pit

Schryder's Hollow

~~Logan~~

Woodbine

Allen cr

Magnolia

Soldier

Pingah

~~Map~~

Murray Hill

County line

Between Co. line & Turin

Maple

Between Turin & Castan

Turin

Castan

E. of Maple

W. of Maple

McClary

Winn

Above Turin

Below Rodney

Weniger pit

Opposite Rodney

Wentworth Glen

Above Grand Center

Evidence that deposits in
Aftonian & not outwash,

1. Consistent position between
sub-Aftonian & Kansan,
County line exposure.
Turin
Woodworth glen.
Castana

2 - or at least below Kansan.
Cox pit
Peyton pit
Dugan pit
Weniger pit
Grand Center to Rodney.
Mapleton - E.
Castana
River Group (Wallace pit)

3 - pebbles, except
Dugan pit
Dariusson pit

4 - Pebbles by Kansan
- to Aftonian
Woodbine
Murray pit
Peyton pit

5 - Cuts with pebbles
Dugan - wall.
Cox pit -
Wallace pit
Griffin wall.

Muscature co. May (1909)²

On road south of ...

Adiantum

Viola cucullata

Asplenium

Oenothera biennis?

Asplenium adnigrum

Hedera pinnatifida

Elymus (big one)

Andropogon furcata

(Morus? -)

Verbascum thapsus

Andropogon tribulus

Rumex acetosella

Lupinus albus

Cirsium (soft, but not)

Panicum (small hairy)

Cassia chamaecrista(?)

Caprilla bursifolia

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

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Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

Andropogon furcata

The mound is about 3
 long & a mile wide
 It is on the side of a hill
 & well defined. The soil
 is flat but wavy & uneven
 & then slopes down to river.
 Below holes at base of mound. Then
 where shrub look gets a hole
 a head of sand is gathered, a
 little small or knot.
 In bottom of the mound
 fields - some
 part of mound is
 covered - water over in the time
 by wind.

Top of mound mostly cultivated
 (now or has been) - low, 20.

side only pastured
 on the forested N & E slope the same
 is covered with black soil

- Ingling
- Fraxin
- X Prunus
- X
- X Phlox
- X
- X C. ...
- X Celtis
- X Eriogonum atriplicifolium
- X Prunus americana
- X within
- X Ostrya
- M. ...
- M. ...
- M. ...
- X ...
- also a few timber plants
- X ...
- M. ...
- X ...
- M. ...
- M. ...
- X ...
- M. ...

Red ...
 ...
 ...

on north side it is much
drifting sand, but not
large —

One of the lower dunes
with campanula seen



Following contour

In this sandy part are clumps
of Hemerocallis honey locust —
some in very exposed places.

Another part shows cross bedding



(This part is in Kovisa 10')

at E end of lake is a most
detached mound — argill is a
very good example of it

Also pink

It is a most detached
mound — argill is a
very good example of it
The argill is a
very good example of it
The argill is a
very good example of it

Bed is about 2 ft. thick
and has drifted sand
in it — a high one (15 or 20 ft)
from start near river
gravel is between beds &
river.

I noticed near the lake, &
part way up slope, some
sand has been heaped up
into little ridges on the
sand, like Chicago sand dunes
case). Took some sand.

All along the road, from the

the 1st. to the 2nd. the road is

very sandy and the soil is

evidently poor.

The fence running N. from S. end

of lake is made of stones with

some. It has a ridge of

ridges 2 or 3 ft. high & a

ridge 2 or 3 ft. high all the way

The old post just thick out of sand, &

a new fence has been put in all of

all the fences on the island, N. & S.

as well as E. & W. have had the

same effect.

Noticed one lone cottonwood

on top.

I came out to see S. of the lake.

The most common birds seen on the

is - Pigeons, Starlings,

Robins, & White.

Found *Viola sagittata* in sandy

soil at base of mound.

I also saw fragments of what I
took to be the following.

<i>Artemisia</i>	<i>arvensis</i>
"	<i>dracunculoides</i>
<i>Gynodia</i>	-
<i>Leptilon</i>	<i>canadensis</i>
<i>Onoclea</i>	<i>californica</i> ? (see notes)

Gilders clams (see book E.)

Unio occidentalis

" *rectus*

" *luteolus*

" *alatus*

" *ligamentinus*

" *plicatus*

" *metanev* (*wardii*)

" *undulatus*

" *anodontoides*

" *subquinosus*

" *lachrymans*

Margaritana complanata

June 12 - 1909

RR to Con River .50

RR to River Sioux 5.25

River Sioux team 2 men 1.50

RR to Mo Valley .75

June 14 -

RR to Sigah - 35, team 35 .70

Mo Valley # 5455 2.00

Account 1909

Apr. 9 - Fare to Fairlee \$17.61
 Fairlee to Malvern 4.12

Apr. 10 Hotel " .50

At Fairlee - Hack ¹⁵ RR to Malvern ³⁵ .50

" Malvern - Hotel ⁷⁵ RR Glenwood ²⁰ .95

" Glenwood - Hotel ⁷⁵ RR ²⁵ 1.00

" RR to Co. Bluffs. ~~38~~

" Co. Bluffs lunch, .25

~~RR to Iowa City~~

Meal en route .55

RR to Hentons .26

(Lunch Parisi Jr. .25)

RR to Co. Bluffs. .38

RR to Iowa City 5.24

15.99
4

Account 1909 To Hamer Co

May 13 - Fare to Cedar Rapids ⁵⁰ ~~Returning~~

" 14 - RR to Har Valley 4.89

" Hotel ^{1.50} ^{2.50} 4.00

May 15 - ~~Hotel~~ ²⁵ ^{1.00} - Dinner - 1.25

RR to Tinsman .14

May 16 - Lunch ²⁵ ²⁴ 1.25

Dinner ⁵⁰ ³⁵ & Ute .35

At Mapleton - Hotel ^{1.50} 1.50

" Livery 2.50

Fare to Cedar Rapids 4.81

Lunch .20

Fare to Iowa City .50

Hack .25

Expenses - June 3-7-1909

June 3 - Fare to Crown Rapids .50
 Fare to Steamers & return 1.12
 June 4 Hotel Crown Rapids, ^{1.50} ²⁰ 1.70
 Fare to Manhattan 1.40-
 Fare to Nelsons .67
 Train to Story City (1.00)
 June 5 Story City to Moor Valley 3.48
 Breakfast ⁵⁰ Train ^{1.50} ^{1.50} ⁵⁰ 2.50
 Shirt ⁸⁰ Underclothes ^{1.00} - socks ¹⁵ 1.95
 Indian boxes ⁵⁰ stamps ⁴⁵ 5.45
 Fare to Fremont .95
 " " " " " " " " 1.05
 June 6 - Fare to Fremont 1.04
 " 7 - Malone ²⁵ " " " " " " " " 1.53 1.78
 " " " " " " " " " " " " 1.50 2.00
 Dinner Moor Valley ⁵⁰ Train ^{1.50} 5.24
 Fare to Iowa City
 Supper .75

Iowa City to C.R. .65
 C.R. to Moor Valley 4.96
 Moor Valley to Fremont .95
 Fremont to Scribner .48
 Scribner to Clarkson .56
 7.60
 1.00
 8.60
 2
 17.20

1.50 ✓
 5.44 ✓
~~2.07~~
 2.07 ✓
 2.00 ✓
 1.04
 50.13.47
 270 6.50
 320 20.37
 6.40
 1.50
 6.90

Missouri Valley May 8 1907

Ch. to ... 1.00
 " " ... 1.15
 Hotel50
 Lunch50
 ... 2.00
 RR. to Iowa City 1.04

Mr. Geo. Fisher
 custom ...
 Mr. Art Elliott
 Whiting, Jr.

Mapleton

C. F. Griffin, -
 Chas. J. Whiting - Elephas tooth
 T. E. Wilkinson No. W. of Mapleton
 from tooth of Mastodon
 Mr. Whiting has it &
 W. E. Dickerson - well-digger
Smithland
 A. M. Turman, Jr.

Pisgah
 Geo. Peyton.

Missouri Valley

E. N. Dyer.	H. R. Newton & Co.
W. C. Leckert.	cermet
Miss Clara Perkins	J. S. Wattles
steer	Smith
Claude Cox	G. H. Longman (Farm)
John Parker	

Logan

Lowery Moreland } well diggers
 David Laysham }

Woodbine

Theodore Warren
 Ed. Holton.

Quana

Mr. Mitchell Vincent
 Judge Addison Oliver (trees)

Castana

John S. Orchard (collumwood)
 David Tacey.

Whiting . Hon. Will Whiting wants:

acumene	onoclea striatop
Synedra	aspidia speciosa
Dryopteris	asplenium filix foem
Mertensia	aspidium acrostichoides
Polemonium	Adiantum

Irwin

Robcock, W. E. -
 (see that he gets photos)
 and not get them sent

2.00
 1.5
 1.4
 4.9
 1.2
 1.2



Hotel Metropole

E. E. COLE, Proprietor

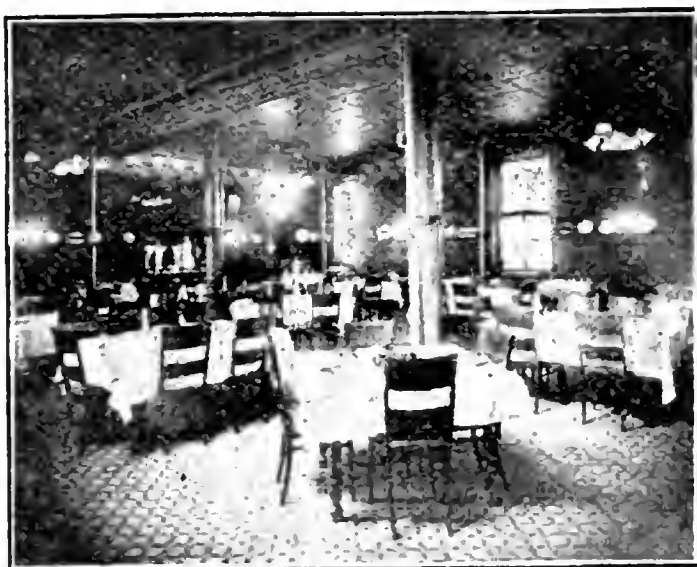
FARGO, NO. DAK.

Fargo's Commercial Hotel. Centrally Located. Rates \$2, \$2.50 & \$3

The DELAVAN

American Plan CEDAR RAPIDS, IOWA

Elegant rooms, 25 rooms with bath. Up-to-date modern hotel, centrally located, adjacent to all railway stations and business center, complete in every detail. Large and well lighted Sample Rooms. Rates that are reasonable. Cuisine above criticism. Unremittive personal attention the part of the management and every employee. New elevator. Enlarged office. **BEST \$2 A DAY HOUSE IN THE CITY.** F. M. YOUNG, Proprietor and Manager.



Holden House

Northeast Corner of
Public Square

John Robrahn
PROPRIETOR

Marengo, Iowa

Sample and bath rooms. Electric and gas lights. Rates \$1.25 Per Day

NEW COMMERCIAL HOTEL

J. L. THORNTON, Proprietor DEXTER, IOWA

Good Rooms, Good Meals and Good Service

Rates, \$2.00 Per Day

CHICAGO ROCK ISLAND & PACIFIC RAILWAY.

Rock Island to Omaha

TABLE

WEST.					Miles.	STATIONS.		WEST			
No 17 Exp	No 19 Mail	No 5 Exp	No 81 Frt.	No 15 Pass		U. S. Express. April 18, 1909.		No 9 Pass	No 7 Ltd	No 63 Pass	No 83 Frt.
A.M. a 2 15	P.M. a 4 15	P.M. a 10 32		A.M. a 7 00	0	Population	lv	P.M. a 10 00	A.M. a 9 15		
A.M. 6 90	P.M. 9 25	A.M. 3 15	A.M. b 7 30	P.M. b 3 00	181	lv	Rock Island	lv	A.M. 2 25	P.M. 1 50	A.M. b 9 50
6 40	9 35	9 25	7 40	3 10	183	lv	*Davenport 39797	lv	2 35	2 00	10 00
					187		Farnam				
					191		Turnout				
					195		Walcott				10 26
					199		Stockton				10 35
					202		Durant				10 41
					208		*Wilton				10 53
					211		Moscow				10 59
					216		Atalissa				11 08
					221	ar	West Liberty 1623	ar	3 35		11 20
7 89	10 44	4 35	10 45	4 25	227	lv	Downey	lv	3 40	3 05	11 35
					227		Downey				11 45
					237	ar	*Iowa City 8497	ar	4 03	3 30	12 05
8 03		5 00	12 05	4 53	245	lv	Tiffin	lv			12 22
					245		Tiffin				12 37
					252		Oxford				12 50
					257		Homestead				1 00
					262		*South Amana				1 12
8 47		5 57	3 08	5 40	267		Marengo				1 24
					274		Ladora				1 37
					280		Victor				1 43
					283		*Carnforth				1 55
					288	ar	Brooklyn 1207	ar			b 7 15
9 20		6 35	5 30	6 30	288	lv	Brooklyn	lv			7 45
					294		Malcom				8 25
9 43		7 00		7 20	303		*Grinnell 4634	5 36	5 12		9 05
					309		Turner				10 00
					314		Kellogg				11 50
					323		*Newton 4398		5 40		12 15
					329		Metz				12 57
10 15		7 35		7 55	335		*Colfax 2553				1 40
10 33		7 55		8 05	341		Mitchellville 755				2 10
					347		Altoona				2 45
					358	ar	E. Des Moines	ar			3 45
11 10		8 40	No 85 Local Frt.	8 58	363	lv	Des Moines 75626	lv	7 00	6 40	3 50
11 23		8 45		9 00	366		Valley Jc. 2009		7 08	6 45	4 05
11 40		9 02	b 7 35		373		Commerce		7 25	7 05	
11 47			7 50		377		Booneville		7 32		
11 58			8 15		380		Van Meter		7 44		
12 05			8 55		387		De Soto		7 52		
12 11			9 31		393		Earlham		7 57		
12 27			10 18		398		Dexter		8 12		
12 37			10 52		398	ar	Stuart 2046	ar	8 23		
12 50		10 03	11 30		398	lv	Stuart 2046	lv	8 35	8 05	5 1
1 00			b 7 00		403		*Menlo		8 45		
1 15			7 30		410		Casey		8 58		
1 30			8 05		418		Adair		9 14		
1 47			8 45		426		Anita		9 28		
2 00			9 50		433		Wlota		9 38		
2 15		11 11	10 20		440	ar	*Atlantic 5180	ar	9 53	9 05	6 25
2 27			11 10		446	lv	Marne	lv	10 07		
2 38			12 05		453		Walnut		10 20		
2 50			12 30		459	ar	*Avoca 1815	ar	10 35		7 00
			12 55		461	lv	Harlan Junction	lv			
			1 30		467		Shelby				
3 05			2 15		474		Minden				
3 16			2 50		478		*Neola				
3 25			3 25		484		Underwood				
3 34			3 50		488		Weston				
3 43			4 10		494		Chatauqua				
4 10		12 50	4 45		499		*Council Bluffs 25231	12 10	10 37	9 35	8 15
4 15		12 55			501		U. P. Transfer	12 15	10 50	9 40	8 20
4 30		1 10			503	ar	*Omaha 102555	12 30	11 05	9 55	8 35

For time between Chicago and Rock Island see page 226

The HISE HOUSE is the hotel at West Liberty, Iowa.

NOTICE TO COMMERCIAL MEN

THE NEW WEST HOTEL IOWA CITY, IOWA

THOS. METCALF :: PROPRIETOR

A home for the boys, where you can feel at home and get good treatment, good meals and a good room, and a clean bed to sleep in, with hot and cold water in every room. Bath and toilet on the same floor, give us a trial and convince yourself that The New West is the place to stop when in Iowa City. Across the street from the Rock Island passenger depot.

CHICAGO, ROCK ISLAND & PACIFIC RAILWAY.

Omaha to Rock Island

TABLE 180

GOING EAST.					Miles	STATIONS. U. S. Express Co. April 18, 1909.	GOING EAST.				
No 18	No 20	No 6	No 64	No 8			No 16	No 82	No 84	No 14	No 10
Pass.	Exp.	Exp	Mail	Mail			Pass.	Frt	Frt.	Pass	Pass
A.M.	A.M.	P.M.	A.M.	A.M.			A.M.	A.M.	A.M.	P.M.	P.M.
		a 4 40	b 11 00	a 3 00	0	lv *Omaha	lv a 7 00			a 6 08	a 4 00
		4 55	11 15	3 15	0	U. P. Transfer	7 15			6 23	4 15
		5 05	11 25	3 30	1	*Council Bluffs	7 25	b 7 00		6 30	4 20
					7	Chautauqua					
			11 45		12	Weston	7 50	† 7 50			4 39
			11 55		17	Underwood	8 00	† 8 15			4 47
			12 12		22	* Neola	8 10	8 45			4 55
			12 23		27	Minden	8 18	9 15			5 05
			12 37		33	Shelby	8 30	9 50			5 18
					40	Harlan Junction					
		6 15	12 55		42	ar * Avoca	8 45	10 35			5 35
			1 10		48	lv Walnut	8 57	11 30			5 45
			1 25		55	Marne	9 10	12 05			6 00
		6 52	1 45	5 10	61	ar * Atlantic	9 25	1 10		8 18	6 15
			2 00		68	lv Wiota	9 38	2 00			6 30
			2 14		75	Anita	9 50	2 45			6 45
			2 30		83	Adair	10 05	3 30			7 00
			2 45		90	Casey	10 22	4 00			7 14
			2 58		97	* Menlo	10 32	4 25			7 30
			3 10	6 20	102	ar Stuart	10 42	4 50			7 42
			3 22		107	lv Dexter	10 52	b 2 00			
			3 34		113	Dexter	10 52	2 30			7 55
			3 50		113	Earlham	11 03	2 52			8 07
			3 57		121	De Soto	11 19	3 20			8 22
			4 05		124	Van Meter	11 25	3 37			8 30
			4 17		128	Booneville	11 33	4 05			8 37
			4 30	7 20	134	Commerce	11 47	4 48			8 50
		9 15	4 40	7 35	138	Valley Junc	11 58	5 10	b 8 00	10 28	8 58
b 6 45		9 27	4 50		143	ar * Des Moines	12 10		8 20	10 40	9 10
6 47		9 35	4 52		143	lv E. Des Moines	12 15			10 50	a \$1 00
7 07			5 13		154	Altoona			8 30		1 23
7 18			5 25		160	Mitchellville	12 46		9 05		1 34
7 32		10 17	5 37		166	* Colfax	12 57		9 35		1 45
† 7 45			5 50		172	Metz			10 33		1 45
7 55		10 37	6 05	8 38	172	* Newton	1 17		† 11 00		† 1 55
8 08			6 23		178	Kellogg	1 33		11 50		2 05
† 8 17			6 33		183	Turner			12 30		2 28
8 25		11 10	6 48	9 15	192	* Grinnell	1 55	No 82	† 1 05	12 18	† 2 37
8 38			7 05		198	Malcom	2 10	Fght.	2 24		2 50
8 50		11 35	7 17		207	ar Brooklyn	2 20	A.M.	† 3 15		3 05
8 58			7 30		213	lv * Carnforth	b 6 40		4 00		3 15
9 05			7 36		218	Victor	† 7 02				† 3 25
9 17			7 48		221	Ladora	2 35	7 15			3 30
9 32			8 00		227	Marengo	2 46	7 40			† 3 39
9 43			8 13		233	* South Amana	2 58	8 15			3 52
9 55			8 26		238	Homestead		† 8 40			
10 07			8 35		244	Oxford	3 18	9 05			4 10
10 20			8 48		249	Tiffin	3 28	9 25			4 23
10 40		1 05	9 05	11 00	256	ar * Iowa City	3 43	10 46			4 40
10 58			9 23		264	lv Downey	4 00	12 05		2 15	5 00
11 10			9 35		274	* West Liberty	4 17	† 12 50			5 20
11 30	a 2 25	1 30	9 45	11 25	279	ar Atalissa	4 30	1 40		2 40	5 30
11 42			9 57		285	lv Moscow	4 40	2 05		2 50	6 00
11 53			† 10 05		290	* Wilton		† 2 30			6 13
11 59			10 12		293	Durant	4 57	2 50			6 23
12 10			10 23		299	Stockton	5 07	3 20			6 32
12 16			† 10 28		301	Walcott	5 12	† 3 35			6 43
12 24			10 36		306	Davenport	5 20	4 00			6 49
1 00	3 25	2 35	11 05	12 25	318	ar Rock Island	5 45	5 05		3 52	7 29
1 10	3 35	2 45	11 15	12 35	320	lv Chicago	5 55	5 15		4 02	7 37
7 35	8 01	7 25	7 03	4 59			10 25			8 58	

For time between Rock Island and Chicago see page 227

The HISE HOUSE is the hotel at West Liberty, Iowa.

Naturally

If you want
the best hotel in

Iowa City

THE ST. JAMES

is the hotel to go to, because the meals are best, the rooms are good and the management courteous and accommodating

Rates \$2.00; With Bath, \$2.50 to \$3.00

J. A. Schiller, Manager

CHICAGO, ROCK ISLAND & PACIFIC RAILWAY.

Minneapolis & St. Paul to Burlington. TABLE 181

GOING SOUTH.					Miles	STATIONS.		GOING SOUTH.				
No 20 Pass	No 414 Pa	No 66 Pass	No 22 Pass	No 32 Pass		U. S. Express Co. May 9, 1909		No 80 Frt.	No 68 Pass	No 432 Pass	No 82 Frt	No 88 Frt
P.M.	A.M.	P.M.	P.M.	A.M.		Leave.	Leave.	A.M.	A.M.	P.M.	P.M.	P.M.
a 3 00			a 7 30	a 9 10		Minneapolis						
3 35			8 05	s 9 45	10	St. Paul						
3 55				10 00	18	New Port						
† 4 05				† 10 05	20	Inver Grove		b 5 30				
4 25			8 42	10 28	31	Rosemount		6 30				
4 38			8 56	10 42	38	Farmington		7 08				
4 50				10 54	45	Castle Rock		7 45				
5 02			9 19	11 06	51	Northfield		8 20				
5 08				11 12	54	Dundas		8 48				
					57	Comus		9 15				
5 29			9 45	11 32	58	Faribault		10 30				
5 45				11 48	65	Medford		11 10				
5 57			10 10	12 02	74	Owatonna		12 02				
6 21				12 27	81	Ellendale		1 47				
6 35				12 41	96	Clark Grove		2 30				
† 6 50			10 58	† 12 55	112	Ar Albert Lea		3 00				
7 10			11 03	1 15		Lv Albert Lea Joint Sta.		b 6 45				
						Glenville		7 20				
7 22				1 27	119	Gordonsville		7 35				
7 31				1 36	124	Northwood		8 00				
7 43			11 30	1 47	129	Kensett		8 25				
7 55				1 59	136	*Manly		8 55				
8 04				2 10	140	*Plymouth Junction		9 15				
8 13				2 20	145	Rock Falls		9 30				
8 19				2 26	149	*Nora Springs		10 00				
8 32			† 12 10	2 38	154	ar *Rockford	ar	11 21	b 5 55			
8 50			12 26	2 53	161	lv Marble Rock	lv	12 05	6 15			
9 04				3 07	169	Greene		12 35	6 26			
9 15				3 20	175	Packard		† 1 00	† 6 33			
† 9 23				† 3 28	181	*Clarksville		1 25	6 45			
9 35				3 40	186	*Shell Rock		1 50	6 58			
9 49				3 54	193							
9 40			1 00	3 42	210	ar *Waverly	lv		6 45			
9 55			1 15	3 57		lv Waverly Jct.	ar		7 00			
9 58			1 21	4 02	197	*Waverly Junction		2 10	7 07			
† 10 03				† 4 07	200	Winslow		2 25	7 13			
10 18			1 38	4 23	209	*Cedar Falls		3 30	7 28			
10 35			1 53	4 40	215	*Waterloo		4 00	7 45		b 1 20	
† 10 48				4 54	222	Washburn			7 57		1 40	
11 05				5 10	230	La Porte			8 12		2 05	
† 11 18				5 22	236	Mount Auburn			8 23		2 25	
11 35	a 12 08		2 40	5 36	244	Vinton			8 40	b 5 05	3 15	b 2 00
† 11 50					249	Shellsburg			9 02	5 25		3 00
† 11 58					257	Palo			9 12	5 35		3 25
					263	Linn						
12 20	1 02		8 20	† 6 20	268	ar *Cedar Rapids	ar		9 35	6 00	5 00	4 17
1 15	e 8 45	b 2 50	3 32	6 50	268	lv	lv	c 11 55	10 00	b 5 00		b 7 35
	9 03	3 07		7 07	276	Ely		† 12 43	10 17	7 21		8 10
	9 17	3 20		7 22	283	Solon		* 1 05	10 30	7 35		8 40
	9 27	3 31			288	Morse		† 1 23	10 40	7 45		8 55
	9 32	3 39		7 39	290	*Elmira		1 30	10 45	7 50		9 20
	9 35	3 46		† 7 42	292	Oasis			10 50			9 30
	9 43	3 56		7 51	295	West Branch			10 58			10 05
	9 48	4 03		† 7 57	298	Center Dale			11 03			10 15
2 20	10 00	4 15	4 32	8 10	304	ar *West Liberty	ar	† 11 15				10 35
		4 35	4 45	8 15	310	lv	lv		11 35			11 45
		4 50	4 58	8 30	318	*Nichols			11 48			12 30
		5 05	† 5 10	† 8 45	325	Cone			12 03		A.M.	1 00
		5 27	5 30	9 10	325	*Columbus Junction			12 20	b 8 35		1 55
		5 36			330	Bard Siding			† 12 30			† 2 10
		5 46	5 53	9 32	336	*Wapello			12 41		9 10	† 2 40
		6 00	6 08	9 52	342	*Morning Sun			12 55		9 40	3 20
		6 05			345	Linton			1 01		† 9 56	† 3 30
		6 15	6 25	10 07	350	*Mediapolis			1 10		10 15	4 00
		6 24			354	Sperry			1 18		† 10 25	4 28
		6 30			356	Latty			1 23		† 10 32	† 4 38
		6 46	7 00	10 37	364	Jefferson St. Depot			1 40		11 00	5 05
			7 10	s 10 45		ar *Burlington	ar					
						St. Louis	ar					
8 01		10 25	11 43	7 03		ar Chicago	ar		4 59			

s—Trains Nos. 31 and 32 carry Minneapolis-Kansas City and Cedar Rapids-St. Louis sleepers.

No. 20 and 416 stop at stations where time is not given to leave passengers from west of Albert Lea or Esterville

NEAT

NEWTON HOUSE

NEW

See the Electric Sign

N. M. SPRINGER, Proprietor

Rates \$1.50 Per Day and Up

CLEAN

ALBERT LEA, MINN.

UP-TO-DATE

CHICAGO, ROCK ISLAND & PACIFIC RAILWAY
Burlington to St. Paul & Minneapolis. TABLE 182

GOING NORTH.					Miles.	STATIONS. U. S. Express Co May 9, 1909	GOING NORTH.			
No 65 Exp.	No 21 Exp.	No. 19 Twin City Exp.	No. 67 Cedar Rap's Pass.	No 31 Mail and Exp.			No 85 Way Frt.	No 407 Pass	No 87 Frt.	
	a 4 30 a 2 15	a 4 30		a 7 40		Chicago St. Louis				
	P.M.	P.M.	P.M.	A.M.		Population	A.M.	P.M.	P.M.	
b 6 00	a 9 05 9 15		b 9 15	s 4 20	9	lv * Burlington 25318 lv	b 6 55			
6 17			9 33		12	Jefferson St. Depot				
6 24			9 39		15	Latty 42	† 7 20			
6 33			9 47	4 47	20	Sperry 88	† 7 30			
6 42			9 56		23	* Mediapolis 852	7 50			
6 49			10 03	4 59	29	Linton 28	† 8 05			
7 03			10 18	5 12	35	* Morning Sun 981	8 30			
7 14			10 28		41	* Wapello 1393	9 10			
7 35	10 25		10 45	5 40	48	Bard	† 9 25			
7 48			10 58	† 5 53	55	* Columbus Junct 1127	10 05			
8 02	10 48		11 12	6 08	61	Cone	10 30			
8 15	11 00		† 11 25	6 25	67	* Nichols 390	12 05			
a 8 32	11 05	a 10 50	11 45		70	Ar * West Liberty 1623 Ar	1 10			
			11 57	† 6 36	73	Lv Center Dale 16 Lv	† 1 30			
4 48	† 11 20		12 03	6 42	75	West Branch 657	1 55			
			12 10	† 6 49	77	Oasis 131	† 2 10			
			12 15	6 55	82	* Elmira	2 40	b 7 00	b 12 30	
			12 20		89	Morse 144	† 2 45	7 05	12 40	
			12 30	7 08	98	Solon 402	3 20	7 22	1 05	
			12 43	7 21	102	Ely 172	3 40	7 34	1 30	
5 45	12 05	11 50	1 00	† 7 40	108	Ar * Cedar Rapids Ar	4 15	7 50	2 00	
b 5 10	a 12 35	12 20	4 15	8 00	112	Lv Linn Lv	b 7 00	b 6 00		
8 29			4 34		121	Palo 257		6 35		
8 40	† 1 03		4 43		129	Shellsburg 565		7 00		
9 05	1 20	1 00	5 05	8 40	135	* Vinton 3487	9 15	7 40		
			5 22	8 53	143	Mount Auburn 291	10 00			
			5 33	9 05	151	La Porte 134	11 00			
			5 47	9 18	156	Washburn 79	11 40			
			6 03	9 35	165	* Waterloo 18071	12 15	b 10 00		
			6 18	9 50	168	* Cedar Falls 5329		10 40		
			6 31	† 10 04		Winslow 27		11 15		
			6 38	10 12		* Waverly Junction		11 35		
			6 53	10 27		ar * Waverly 3353 ar				
			6 38	10 12		lv Waverly Jct lv				
			6 47	10 21	172	* Shell Rock 848		11 55		
			7 00	10 34	179	* Clarksville 957		12 30		
			† 7 10	† 10 43	184	Packard	† 1 00			
			7 20	10 55	190	Greene 1224	1 30			
			7 30	11 06	196	Marble Rock 332	2 00			
			7 45	11 21	203	Ar Rockford 969 Ar	2 53			
		3 25			211	Lv * Nora Springs Lv		3 30		
		3 41			217	Rock Falls 98		3 55		
					220	* Plymouth Junction		4 15		
					225	* Manly 327		4 40		
					230	Kensett 485		5 05		
					236	Northwood 1373		5 40		
		4 25			241	Gordonville 128		6 10		
					245	Glenville 351		6 40		
						Albert Lea Jnt Sta.	No 81 Frt.			
					258	* Albert Lea 5657	A.M.	7 10		
		4 55	† 1 00		269	Clark Grove	b 7 00			
		5 05	1 20		284	Ellendale 252	7 47			
			1 33		291	Owatonna 5651	8 20			
		5 53	1 47		300	Medford 375	9 25			
		6 18	2 12		306	Faribault 8279	9 50			
			2 23		307	Comus	11 32			
			2 40		310	Dundas 399	12 01			
				3 00	313	Northfield 3478	12 15			
		6 45	3 08		320	Castle Rock 30	12 40			
			3 20		326	Farmington 867	1 05			
		7 08	3 34		333	Rosemount 254	1 50			
		7 22	3 48		344	Inver Grove 50	2 25			
			† 4 05		346	New Port	3 30			
			† 4 12		354	ar St. Paul 197203				
		8 10	4 25		364	Ar Minneapolis 261974				
		8 40	s 5 05							

Freight trains going north leave from upper yard at Cedar Rapids.

Hise House

West Liberty, Iowa

E. S. HISE Prop.

RATES: \$2.00 and \$2.25

CHICAGO ROCK ISLAND & PACIFIC RAILWAY.

Dows to Estherville.

TABLE 183

GOING WEST					Miles.	STATIONS. U. S. Express Co. Oct. 25, 1908	GOING EAST				
	No 439 Mix'd	No 81 W. F.	No 435 Pass.				Popu- lation	No 436 Pass.	No 438 Mix'd	No 82 Frt.	No 82 Frt.
	P.M.	A.M.	P.M.					P.M.	A.M.	P.M.	A.M.
-----	-----	b 7 20	b 1 00	16	lv	*Dows	904	b 8 45	-----	b 4 50	-----
-----	-----	7 50	1 11	23	-----	Rowen	242	8 27	-----	4 25	-----
-----	-----	8 30	1 25	31	-----	*Belmond	1208	8 08	-----	3 55	-----
-----	-----	9 00	1 35	36	-----	Goodell	245	7 55	-----	3 20	-----
-----	-----	9 35	1 46	42	-----	Klemme	292	7 40	-----	2 50	-----
-----	b 3 00	10 25	2 02	48	-----	*Garner	1200	7 25	b 10 15	2 02	-----
-----	3 10	-----	-----	50	-----	Hayfield Junction	-----	-----	10 05	-----	-----
-----	3 35	-----	-----	53	-----	Hayfield	40	-----	9 45	-----	-----
-----	4 10	-----	-----	59	-----	Crystal Lake	202	-----	9 20	-----	-----
-----	4 40	-----	-----	69	-----	Woden	200	-----	8 55	-----	-----
-----	5 15	-----	-----	75	Ar	Titonka	245	-----	8 30	-----	-----
-----	-----	10 50	2 13	57	-----	Miller	10	7 09	No 438	1 35	-----
-----	-----	11 30	2 26	63	-----	*Forest City	1665	6 55	Pass.	1 15	-----
-----	-----	12 35	2 49	73	-----	Thompson	431	6 27	-----	12 35	-----
-----	-----	1 10	3 09	82	-----	Buffalo Center	701	6 05	A.M.	11 55	-----
-----	-----	2 10	3 25	90	-----	Germania	331	5 45	b 11 20	11 25	b 10 00
-----	-----	† 2 25	3 34	95	-----	Gerled	-----	-----	11 07	-----	† 9 40
-----	-----	2 55	3 45	101	-----	Swea City	373	-----	10 56	-----	9 20
-----	-----	4 01	4 01	110	-----	Armstrong	706	-----	10 40	-----	8 40
-----	-----	4 35	4 15	116	-----	Maple Hill	15	-----	10 27	-----	8 50
-----	-----	5 00	4 25	122	-----	Gruver	-----	-----	10 16	-----	7 40
-----	-----	5 25	4 40	129	Ar	*Estherville	3650	-----	10 00	-----	7 20

Muscatine to Montezuma.

TABLE 184

GOING WEST.					Miles	STATIONS. U. S. Express Co. April 18, 1909	GOING EAST				
	No 83 Frt.	No 401 Pass.					No 402 Pass	No 82 Frt.			
	A.M.	A.M.					P.M.	P.M.			
-----	b 7 30	b 8 15	-----	-----	-----	Population Lv 27 Muscatine 15087 Ar	b 7 10	c 4 30	-----	-----	-----
-----	† 7 55	8 35	-----	8	-----	Bayfield	6 52	† 3 15	-----	-----	-----
-----	† 8 10	† 8 45	-----	13	-----	Adams	6 42	† 2 55	-----	-----	-----
-----	8 57	8 57	-----	16	-----	* Nichols	6 35	2 45	-----	-----	-----
-----	-----	9 10	-----	23	-----	Lone Tree	6 16	1 45	-----	-----	-----
-----	† 10 15	9 16	-----	26	-----	River Junction	6 07	† 1 00	-----	-----	-----
-----	10 22	9 20	-----	28	-----	* Iowa Junction	6 02	12 55	-----	-----	-----
-----	11 15	9 33	-----	31	-----	Riverside	5 57	12 50	-----	-----	-----
-----	11 55	9 49	-----	37	-----	Kalona	5 39	11 55	-----	-----	-----
-----	1 05	10 06	-----	45	-----	Wellman	5 22	11 15	-----	-----	-----
-----	† 1 25	10 16	-----	49	-----	Nira	5 07	† 10 35	-----	-----	-----
-----	1 40	10 23	-----	53	-----	Kinross	5 00	10 23	-----	-----	-----
-----	2 05	10 35	-----	58	-----	South English	4 48	9 55	-----	-----	-----
-----	2 25	10 45	-----	63	-----	* Webster	4 37	9 30	-----	-----	-----
-----	2 45	10 55	-----	67	-----	Keswick	4 27	9 15	-----	-----	-----
-----	3 15	11 06	-----	72	ar	* Thornburg 233	4 15	8 50	-----	-----	-----
-----	3 35	11 18	-----	77	ar	* What Cheer	4 00	8 30	-----	-----	-----
-----	4 25	11 35	-----	72	-----	* Thornburg	3 48	8 00	-----	-----	-----
-----	4 45	11 45	-----	76	-----	Gibson	3 37	7 40	-----	-----	-----
-----	5 05	11 55	-----	80	-----	Barnes City	3 27	7 25	-----	-----	-----
-----	5 30	12 15	-----	83	ar	* Montezuma 1234	3 10	7 00	-----	-----	-----

Wilton Branch.

TABLE 185

GOING WEST.					Miles	U. S. Express Co. April 18, 1909	GOING EAST.				
	No 501	No 503	No 505				Pop.	No 500	No 502	No 504	
	P.M.	P.M.	A.M.					A.M.	P.M.	A.M.	
-----	b 12 05	b 5 00	b 7 30	-----	lv	Wilton 35	1139	b 10 45	b 3 50	b 7 10	-----
-----	12 20	5 15	7 45	5	-----	Summit	-----	10 30	3 37	6 45	-----
-----	12 35	5 30	8 00	12	ar	Muscatine 6	15089	10 15	3 20	6 25	-----

GRAND HOTEL

J. G. DERMEDY, Proprietor

MUSCATINE, IOWA

Modern. Steam heat. Sample Rooms. In the heart of the city, one block from the depot, banks and opera houses. RATES \$2.00 and \$2.50.

